

## ARE PUBLIC SECTOR POWER SUPPLY ORGANIZATIONS PUBLIC-CENTERED IN DEVELOPING COUNTRIES? SERVQUAL INVESTIGATION

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### ABSTRACT

*The study aims to investigate perceived service quality of Pakistan's only public sector power services provider. Primary data is collected from 300 randomly selected power supply consumers who visited different local places, during a two-month data collection period. The respondents were asked to fill in a questionnaire carrying 22 items based on SERVQUAL dimensions; reliability, tangibility, assurance, responsiveness, and empathy. There are major deficiencies noted in the service provision of GEPCO however, the SERVQUAL proved to be reliable when applied to measure the service quality of public sector organization. The scope of this research is limited to a single unit of power supply services which can be justified by considering the uniqueness of idea to investigate the service quality of power supply service as it has been initiated for the first time in Pakistani context. The study contributes theoretically towards successful application of SERVQUAL to public sector organizations operating in a developing country and will also help the local authorities in improving the service quality of country's major power supply company. Keywords: Service quality, public sector, customer satisfaction, Pakistan.*

### INTRODUCTION

The revenue earned from service sector accounts for a major chunk of the GDP (Gross domestic Product) even in developing economies like Pakistan. Today, as the competition has gone beyond its limits, delivering quality services is regarded imperative for success (Parasuraman et al., 1985; Zeithaml et al., 1990). The public sector organizations are also under mounting pressure to deliver excellent services to their customers by focusing on improving efficiencies (Robinson, 2003). Pakistan is the sixth largest country of the world in terms of population. Despite an astonishing growth of services sector, the service quality of public sector organizations is still questionable and these organizations have been unsuccessful in winning the public trust. WAPDA (Water and Power Development Authority) is the major electricity producer and supplier in Pakistan for businesses, commercial, and final consumers. It is a state-owned organization, involved in the process of buying power supply from different organizations to fulfill the demand of consumers, businesses, and government in the areas of water and power development. The utility bills in Pakistan for power supply services are managed by WAPDA which has six strategic business units; Lahore Electric Supply Company (LESCO), Gujranwala Electric Supply Power Company (GEPCO), Faisalabad electric supply Company (FESCO), Islamabad Electric Supply Company (IESCO), Multan Electric supply Power Company (MEPCO), Peshawar electric Supply company (PESCO), Hyderabad Electric Supply Company (HESCO), and Quetta Electric Supply Company (QESCO). Investigating the service quality of public sector organizations is recognized as one of the important areas which lead the organizations in meeting the customer needs (Anarcai et al., 2001). Hood (1995) in his study suggested probing the service quality of public sector organizations which can bring economic and social change by development in the developing countries' context. The academically published literature in measuring the service quality of Pakistani public sector organizations is scarce and there was not even a single notable contribution found. On the contrary, given the micro and macro challenges to the state and keeping in view the questionable quality perceptions of major public sector organizations in Pakistan, it is considered imperative to investigate the service quality gaps which will help the respective organizations to improve the quality of the services

offered. There are various models used to assess the service quality of different organizations but SERVQUAL remains most widely and useful model while assessing the service quality of various organizations. It was initially a ten dimensional scale, developed by Parasuraman et. al, (1985) rather further modified by many researchers and now it is among the most widely used scales around the globe to measure the service quality; expectations and perceptions. The SERVQUAL dimensions are; reliability, assurance, tangibles, responsiveness, and empathy and it is mostly used to identify the gap between the expected quality versus the perceived quality of services, and to measure the customer's perceptions of any service's quality (Parasuraman et al., 1985). Nyeck, Morales, Ladhari, and Pons (2002) recommended the SERVQUAL measuring tool and proclaimed that it is the most complete attempt to conceptualize and measure service quality, especially the perceived service quality.

A major strength of SERVQUAL measurements is the ability of researchers to examine numerous service industries such as healthcare, banking, financial services, and education, and many more (Nyeck et al., 2002). The fact that SERVQUAL has critics does not render the measuring tool doubtful instead, the criticism received concerning SERVQUAL have increased its popularity as well as the extent to which researchers use the tool. Nyeck et al., (2002) reviewed 40 articles that made use of the SERVQUAL measuring tool and discovered "that few researchers concern themselves with the validation of the measuring tool". There are very few studies noted assessing the service quality of public sector organizations in Pakistani context and given the importance and inclusion of Pakistan in WTO, and threats of ruining the image of public sector organizations in Pakistan, it is imperative for Pakistani public sector organizations to further explore the service quality gaps which will help them to stay competitive against the multinational organizations operating in Pakistan (Awan et al. 2006). Research has highlighted that good quality of services provided to customers lead to attracting new and retaining existing customers, decreased costs, a good corporate image, highly positive word-of-mouth and, eventually, an increase in firm's profitability and overall competitiveness (Yoon and Suh, 2004; Cronin et al., 2000). This study is pioneer in its nature and kind as it empirically tests the service quality perceptions of power supply users. The core objective behind this scholastic investigation is to empirically find out the deficiency areas in the service provision of GEPCO from a user's perspective; undoubtedly the major stakeholder. The research will help the GEPCO officials to work on identified areas highlighted by virtue of the study to improve the service quality of power supply giant. However, the study is limited only to single unit of WAPDA.

## **REVIEW OF LITERATURE**

It has been noted that Marketers promote a functional approach while measuring the service quality for any organization by using a process which measures the technical quality of the service investigated. This approach has been criticized and experts believe that measuring the construct with this methodological approach, at times, creates much confusion and is considered inappropriate (Donabedian, 1980). Today, service quality research is dominated by the 'SERVQUAL', which investigates the differences between customer expectations and perceptions by identifying the gaps in between. This approach is considered a major fly-away from the traditional approaches used to measure the service quality constructs in different sectors of any economy (Parasuraman, 1992). Despite its popularity, the researchers believe that a scale must be carefully designed and modified by customizing the service quality investigations across different sectors (Ramsaran-Fowdar, 2005).

## **SERVICES MARKETING**

Services are distinct as compared with goods due to some significant differences – intangibility, heterogeneity, inseparability, and perishability. Services are 'intangible' because these are deeds, acts, and performances which cannot be seen and touched, are very difficult to investigate (Khan, 2003). Services are 'heterogeneous' as the quality of the performance will vary from person to person with respect to time, and are highly dependent upon the service provider and receiver's expertise (Markovic, 2006). Services are 'inseparable' as many services are produced and consumed at the same time and the skill, knowledge, and abilities remain with the service provider; does not convert in consumer ownership of the service product (Parasuraman, 1985). Services are 'perishable' because the acts, performances, and experiences cannot be stored or to be sold some other day. It can be rather inferred that service quality is the difference between

any customer's expectations and perceptions and the four distinct service features pose many challenges to measuring the quality of services.

### **The SERVQUAL Scale**

Parasuraman (1985) highlighted five gaps that organizations should be able to minimize in order to manage the service quality:

- Gap 1 is the distance between what customers actually expect and what managers perceive the customers expect.
- Gap 2 is the difference between management perception and the actual specification of the customer experience - Managers need to make sure the organization is defining the level of service they believe is needed.
- Gap 3 is variance from the experience specification to the delivery of the experience - Managers need to audit the customer experience that their organization currently delivers in order to make sure it lives up to the specifications.
- Gap 4 is the gap between the delivery of the customer experience and what is communicated to customers - All too often organizations exaggerate what will be provided to customers, or discuss the best case rather than the likely case, raising customer expectations and harming customer perceptions.
- Gap 5 is the gap between a customer's perception of the experience and the customer's expectation of the service - Customers' expectations have been shaped by word of mouth, their personal needs and their own past experiences. Routine transactional surveys after delivering the customer experience are important for an organization to measure customer perceptions of service.

In the original formulation, Parasuraman et al. (1985) identified ten components of service quality measurement scale which were further tested and a new scale, comprising of five dimensions was developed; Tangibles (services, physical evidence and other service facilities); Reliability (consistency of performance, performance, and the importance of commitment to consumers); Responsiveness (Staff will provide services and immediate); Assurance (Knowledge and courtesy of employees and their ability to convey trust and confidence); Empathy (The firm provides firm care and individual attention to the customer).

The SERVQUAL model of measuring service quality employs a pair of 22-item scale where one pair represents customer expectations and the other captures the customers' perceptions (Parasuraman, 1985). Calculating the difference between the two domains expresses the extent of service quality of the respective organizations. It can be explained as;

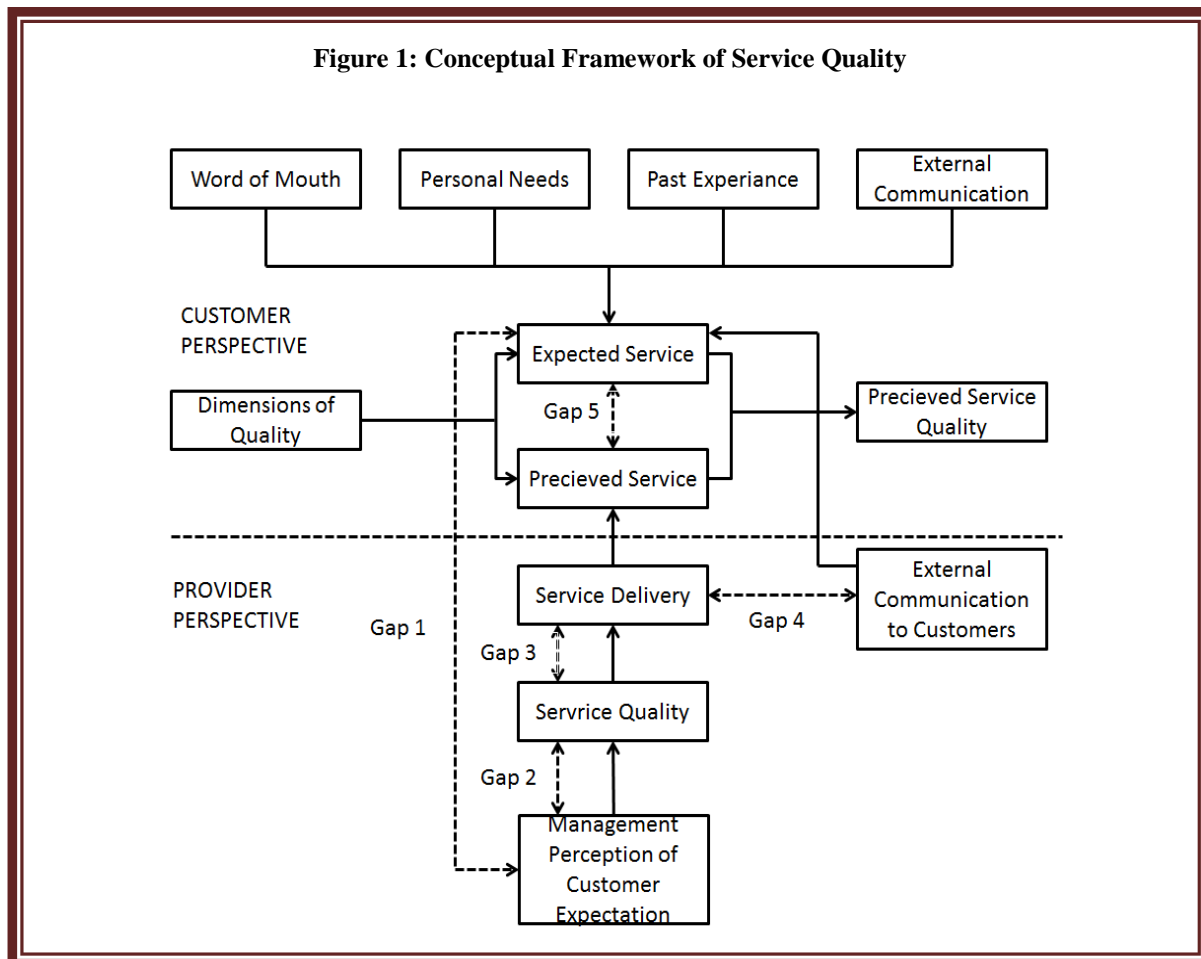
“Service Quality (SQ) = Perception (P) - Expectation (E)”.

### **MARKETING IN THE PUBLIC SECTOR**

Marketing for the public sector has been considered as inappropriate and overtly commercial, irrelevant, and worst, in its nature and application (Laing and McKee, 2001). However, an increase in consumer knowledge, emergence of democratic economies, and outsourcing has challenged the traditional views on marketing to the public sector and by arousing a need to serve the communities in a marketable, service-oriented way (Saltman and von Otter, 1995). Hence, it has been stated that the concept of 'welfare state' is dependent upon the public organization's ability to serve the stated needs of its citizens and furthermore, public sector organizations are responsible and accountable to the communities. The measurement of public service' quality through SERVQUAL has been well reported by many researchers in the modern era (Wisniewski, 2001). The SERVQUAL model has been widely used not only in private sector but also in the public sector services (Bryland and Curry 2001). Although, measuring service quality of public services has been more difficult and complex due to the fact that it is a matter of not only meeting the stated expectations but also finding out non-stated expressions (Gowan et al., 2001). It is also a fact that public sector employees are currently faced by some new professional challenges arising from introducing new principles, tools & techniques in public sector management (Caron and Giaque, 2006). However, the academic literature

strongly support the role of frontline and back line employees in delivering high quality services through their positive attitude and gestures, willing-to-help attitude and consistency of good performance while service delivery and above all, contributing towards organizational equity by recognizing it as a 'brand' (De Chernatony et al., 2001). Highly satisfied and service-oriented employees deliver excellent services which is a great contributor towards building strong organizational image (Nandan, 2005).

The frequent and trusted use in different parts of the world has definitely highlighted the importance of SERVQUAL while measuring the quality of services in any sector and it has also triggered some service quality research in the public sector organizations of Pakistan. The study of Awan et al. (2006) measured the service quality of public versus private university libraries in Pakistan and found that there are many differences between user's expectations and perceptions regarding the service quality of libraries. However, the mean differences considering service quality were much greater in case of public sector libraries as compared with private sector university library services. The study of Saeed and Ramazan (2003) measured the service quality of a private university and found that the students are satisfied with the overall quality of respective library but they demand to add more books to the library. The study of Majeed (1998) investigated a library of a public sector university with respect to its circulation and referencing services and found that the readers are quite well satisfied with the services offered. The studies of Saddique, (2006), Rafi (2006), and (Jabeen, 2004) also found some deficiencies in all major domains of SERVQUAL in librarianship in Pakistan. However, none of the research work has been found to measure the public's perception of power supply service quality in Pakistan and the current research study will fill this gap by capturing the customer perceptions of service quality from GEPCO's consumers.



Conceptual Framework: Adopted from Parasuraman (1994)

**METHODOLOGY**

The purpose of this study was to gauge public perceptions about GEPCO’s service quality in Pakistan. For the purpose of study a mixed methods approach was selected which combined positivist and interpretivist philosophies to research. Given the limitations of SERVQUAL and absence of relevant academic literature addressing the service quality of power supply consumers, researchers held a focus group session with 20 graduate-level students in a local university who were also the users of GEPCO’s services. The respondents were asked open-ended questions; “How would you define the service quality of GEPCO”, “What are the factors which signal service quality”. The respondents of focus group session highlighted some important components of service quality, already included in the SERVQUAL scale dimensions, with respect to satisfaction with Gujranwala Electric Power supply Company (GEPCO). A questionnaire was developed based on 22 questions that attempted to measure the service quality perceptions, following the SERVQUAL dimensions. A careful review of service quality in the public sector literature, and the focus group session helped the research team in designing a SERVQUAL-centered instrument, comprising of five dimensions; Reliability, Responsiveness, Tangibility, Assurance, and Empathy.

The questionnaire comprised of two parts; the SERVQUAL dimensions, and demographics. The service quality impressions were captured by using a five point Likert scale; 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, and 1=Strongly Disagree. The data collection was performed in the city of Gujranwala during the months of March to April, to measure the customer perceptions of service quality. The questionnaire was distributed among general public; randomly selected supermarket visitors and shoppers. The sample included bankers, shopkeepers, industries, education professionals, women, agriculturists and students. The study is exploratory in nature and follows a survey-based approach to research which is already noted in the literature to conduct the public sector service quality assessment surveys (Nyeck et al. 2002; Brysland and Curry, 2001). The questionnaire was distributed among 300 volunteer participants, among the questionnaires distributed, 275 were collected back filled and were usable with a response rate of 92 percent. The same number of sample respondents have been noted in the work of Nyeck et al. (2002), using a case-study approach to conduct research in the public sector which justifies the sample size of present study. The data was analyzed by using SPSS 16.0 and the research team calculated demographics descriptive data, KMO and Bartlett's Test, Descriptive Statistics of variables, and Regression.

**DEMOGRAPHICS**

The sample comprised of 30.56 % females and 69.44 % males. Among the respondents, 37 % aged below 25, 32 % between 25-36 years, 20 % between 36-45 years, and the remaining 11 % above 46 years in age. Among the respondents, 16 percent were self-employed, 22 percent were on wages, 22 percent were having white-collar jobs, 18 percent were students, and rests of 20 percent were unemployed. The respondents characterized 61 percent as domestic users, 27 percent industrial and 10 percent as agricultural users.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.660
Bartlett's Test of Sphericity	Approx. Chi-Square	1353.625
	Difference	210
	Significance	0.000

Table 1 presents the sample adequacy for the purpose of study varying between 0 and 1, and values closer to 1 are better. A value of 0.6 is generally acceptable and the score for this study is 0.660, which is acceptable and infers that the sample is adequate to validate the results of the study.

Table 2: Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation	Cronbach's Alpha
<b>Tangibles</b>						
Tools and equipment are modern	275	1	5	2.52	1.11499	
GEPCO's office facility are visually appealing	275	1	5	2.67	1.01124	
Inside environment are visually appealing	275	1	5	2.32	1.04322	
GEPCO's employee are appearing neat	275	1	5	2.39	1.0971	0.618
<b>Reliability</b>						
When GEPCO promises to do something by a certain time ,it does so	275	1	5	2.21	1.17818	
When you have a problem, GEPCO shows a sincere interest in solving it	275	1	5	2.45	1.2204	
GEPCO performs the service right the first time	275	1	5	2.52	1.23312	
GEPCO's services are punctual	275	1	5	2.49	1.18189	
GEPCO insists on error free records	275	1	5	2.32	1.13109	0.775
<b>Responsiveness</b>						
Employees in GEPCO tell you exactly when service will be performed	275	1	5	2.28	0.97094	
Employees in GEPCO give your prompt service	275	1	5	2.22	1.08988	
Employees in GEPCO are always willing to help you	275	1	5	2.16	1.08231	
Employee in GEPCO are never too busy to respond to your request	275	1	5	2.20	0.99634	0.790
<b>Assurance</b>						
The behavior of employee in GEPCO instills confidence in you	275	1	5	2.15	1.02449	
You feel safe in services provided by GEPCO	275	1	5	2.24	1.21305	
Employees in GEPCO are consistently courteous to you	275	1	5	2.32	1.17539	
Employee in GEPCO have the knowledge to answer your question	275	1	5	2.58	1.23301	0.587
<b>Empathy</b>						
GEPCO does not discriminate on any bases	275	1	5	2.28	1.1843	
GEPCO have operating hour convenient to all its customers	275	1	5	2.17	1.14564	
GEPCO employees give your personal attention	275	1	5	2.32	1.18359	
GEPCO have your best interest at heart	275	1	5	2.16	1.22569	
The employees of GEPCO understand your specific needs	275	1	5	2.42	1.24282	0.784
Valid N (list wise)	275					

Table 2 presents the data presented through descriptive statistics for the purposes of study. The Cronbach's alpha, standard deviation, and mean scores are presented to describe the extent of internal consistency and extent of agreement and disagreement with the questions posed regarding service quality of GEPCO. The

Likert scale used for the purpose of study ranged from 1=strongly disagree to 5=strongly agree. The mean results regarding the service quality of GEPCO exhibit a serious concern for improving the quality as the mean score for all the 22-item scale are less than 3.00, in every case. It can be inferred that people perceive a poor service quality of GEPCO on all five SERVQUAL dimensions. A rule of thumb in describing the alpha values to measure the internal consistency is as follows;  $\alpha \geq .9$ =Excellent,  $.9 > \alpha \geq .8$ =Good,  $.8 > \alpha \geq .7$ =Acceptable,  $.7 > \alpha \geq .6$ =Questionable,  $.6 > \alpha \geq .5$ =Poor,  $.5 > \alpha$  (George, D., & Mallery, P. 2003). The five dimensions of SERVQUAL in this study present different alpha scores; Tangibility (0.618), Reliability (0.775), Responsiveness (0.790), Assurance (0.587), and Empathy (0.784). The alpha scores for the Reliability, Responsiveness, and Empathy are considered 'good', while 'questionable' for Tangibles and 'poor' for Assurance. The mean results alongside standard deviation depict the poor performance levels of the power supply giant and in fact, all the users perceive major deficiencies in performance levels. The SERVQUAL dimensions used for the purpose of study exhibit a clear lack in perceived quality of GEPCO amongst five dimensions.

Table 3: Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.735(a)	0.540	0.502	0.76924

Table 3 presents the regression analysis done for the purpose of understanding the existence and extent of relationship between dependent and independent variable. The R represents the correlation between the specified variables and a score of .735 depicts a strong relationship and the variable strongly correlate as per the results of this study. The term R-Square is used to assess the variations caused in the data or the data spread due to the factors included in the study; 54 percent in this study and 46 percent is caused due to the variables not included in this study to measure the construct of service quality. The score of .540 is considered an ideal in consumer-led studies. Standard error represents mean variations which is .76924 for this study and is good.

Table 4: ANOVA

Model		Sum of Squares	DF.	Mean Square	F	Sig.
1	Regression	175.762	21	8.370	14.144	0.000
	Residual	149.707	253	0.592		
	Total	325.469	274			

Table 4 illustrates the F-statistic which exhibits the variations in the data presented. The results for this study are highly significant and can be relied upon while generalizing.

Table 5 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.271	.214		1.265	.207
	<b>Tools and equipment are modern</b>	<b>.133</b>	<b>.054</b>	<b>.136</b>	<b>2.458</b>	<b>.015</b>
	<b>GEPCO's office facility are visually appealing</b>	<b>-.226</b>	<b>.062</b>	<b>-.210</b>	<b>-3.627</b>	<b>.000</b>
	Inside environment are visually appealing	.070	.055	.067	1.284	.200
	GEPCO's employee are appearing neat	.011	.060	.011	.178	.859
	When GEPCO promises to do something by a certain time ,it does so	.017	.062	.019	.275	.783
	When you have a problem, GEPCO shows a sincere interest in solving it	.064	.054	.072	1.178	.240
	GEPCO performs the service right the first time	-.041	.053	-.047	-.781	.435
	GEPCO's services are punctual	.071	.057	.077	1.234	.218
	GEPCO insists on error free records	.054	.055	.056	.985	.325
	<b>Employees in GEPCO tell you exactly when service will be performed</b>	<b>.167</b>	<b>.062</b>	<b>.149</b>	<b>2.701</b>	<b>.007</b>
	<b>Employees in GEPCO are always willing to help you</b>	<b>.345</b>	<b>.065</b>	<b>.343</b>	<b>5.323</b>	<b>.000</b>
	Employee in GEPCO are never too busy to respond to your request	-.092	.077	-.084	-1.195	.233
	<b>The behavior of employee in GEPCO instills confidence in you</b>	<b>.182</b>	<b>.074</b>	<b>.171</b>	<b>2.477</b>	<b>.014</b>
	You feel safe in services provided by GEPCO	-.035	.071	-.039	-.498	.619
	Employees in GEPCO are consistently courteous to you	.068	.066	.073	1.033	.303
	Employee in GEPCO have the knowledge to answer your question	-.003	.048	-.003	-.060	.952
	GEPCO does not discriminate on any bases	.096	.061	.104	1.561	.120
	GEPCO have operating hour convenient to all its customers	-.007	.069	-.007	-.096	.923
	GEPCO employees give your personal attention	-.043	.068	-.046	-.633	.528
	<b>GEPCO have your best interest at heart</b>	<b>.152</b>	<b>.070</b>	<b>.171</b>	<b>2.171</b>	<b>.031</b>
	The employees of GEPCO understand your specific needs	-.076	.050	-.087	-1.533	.126



Table 5 outlines the level of significance for the SERVQUAL items, used to assess the service quality perceptions about GEPCO's power supply services. There are some highly significant items which are the suggested areas of focus for improvement in service quality. Consumers place great importance to the 'tools are modern' with a t-stat of 2.548 at a confidence level of 98 percent can be interpreted as positively correlated. Another variable, although with almost 100 percent confidence level but negatively correlated and considered non-important for power supply consumers is the 'office facilities', having a t-stat of -3.627. Its justification with the help of previous academic literature has been much difficult due to the fact that work in the power supply sector is much scarce and as per the capacity of researchers, no reliable, and published data was found to support this argument. 'Employees in GEPCO tell you exactly when the service will be performed' is another positively correlated variable at almost a significance level of 100 percent. The role of employees in delivering service quality has been well recognized in the academic literature and the results are in line with the work of Robinson (2003). 'Employees are willing to help' and 'employees' behavior instills confidence in you are two more highly valued and desired items which are considered important for the power supply consumers. With a confidence level of 100 percent and 98 percent respectively, these two have the t-stat of 5.323 and 2.477. The importance and role of employees in delivering high quality service has been well supported in the literature and employees are expected to be nice, helping, and fair with the customers in any service encounter which is also the case in this study (Nandan, 2005). Another important item in delivering high quality services is the 'best interest at heart' with a t-stat of 2.171 at almost 75 percent confidence level.

## CONCLUSION

The current study aimed to test SERVQUAL in public sector services in Pakistan. The scale proved to be reliable that it can be used to improve the service quality of Pakistani power supply sector. The model was used as a diagnostic tool to shed some light in the quality improvement of public sector services in Pakistani context. Given the fact that deregulation is a norm in third world countries and many governments are also privatizing their non-profit public sector organizations, improving the service quality in public services cannot be neglected. Although, type of customers may vary but relying on the results of this study, every type of customer seem to be rather dissatisfied with the service quality on the SERVQUAL scale. For example, there are poor mean scores on all five dimensions of the model used which translates into some major improvements. A poor mean score on 'tangibles' can be interpreted as the power supplier lacks the necessary office, tools, and technology facilities which can meet the challenge of 'intangibility' in services. Likewise, meeting promises, sincerity in work, error-free service, and consistency are the characteristics of 'reliability' but again a below average score indicates a lack in all the mentioned areas. The role of employees, their positive gestures and willingness to help, especially the frontline, cannot be neglected in any type of face-to-face service encounters but in the case of this study a clear shortfall in meeting the customer expectations on the 'responsiveness' domain is observed through the results. A meager score in 'assurance' dimension indicates that the employees do not have the knowledge & courtesy while performing the services. And there is some level of discrimination, lack of customization, and absence of understanding the customer needs are the factors prevalent in the power supply service providers which can be inferred through the poor results of the 'Empathy' dimension.

The researchers kept them geographically bound to the city of Gujranwala and considered GEPCO only to assess the power supply consumer's perception of service quality. The major reason was absence of scholarly work available in the area of service quality in public services alongside the other reason which was a wide spread network of power supply service providers as well the consumers; beyond the reach of research team due to limits of time and cost. Another limitation of this research is its focus merely on the service delivery by the GEPCO employees, but, future studies can incorporate the reasons of the identified 'lacks' while delivering power supply services in Pakistan. Another suggested area of future work can be to include other units of WAPDA, and making a comparison amongst them to better generalize the results.

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