## Government Service Delivery System: Does Satisfaction Matter? With Reference to Right to Service Act in the State of Karnataka, India

#### Raghavendra D. Padiyar

CMR University, Bangalore - 560043, Karnataka, India; raghavendra.dpadiyar@rediffmail.com

#### Abstract

Purpose: Service delivery is the main function of any government. For measuring the success of government and its governance a well-founded theory is crucial, which could help governments to improve their service standards as well as service satisfaction of citizens. We propose this measure using citizen service satisfaction as a measure of government's success, as well as explore its relation with quality of the service delivered to the citizens. The purpose of this research is to examine the quality of public service delivery system in Karnataka, India and determine the important factors which influence the quality of public service delivery system and citizen service satisfaction. Design/Methodology/Approach: In India, the majority of states are delivering the public services to citizens under right to service act. In comparison with 23 other counterparts, Karnataka has been the state to deliver highest number of services in India under right to service act. At present the state of Karnataka is providing 1,181 services within the stipulated time frame of right to service act. Hence survey was conducted in the state of Karnataka. Primary data associated with variables influencing public service quality are collected using a questionnaire survey. The survey questionnaire has been designed on basis of literature review and in consultation with officials involved in public service delivery system. Findings: Tangibility, reliability, responsiveness, assurance, empathy, valence, and waiting time were the seven factors which were grouped under two dimensions functional quality and technical quality of service delivery. The analysis shows that 52.2% of the variance in citizen service satisfaction is captured by service quality and its dimensions. We found that service quality has a relationship with citizen service satisfaction. Waiting Time, responsiveness, assurance, and tangibility were found to be of more importance when compared with remaining factors in determining service quality. From the study, it is evident that citizen service satisfaction can be expressed as proportional change in service quality. Practical Implications: The results contribute towards understanding of key factors which influence citizen service satisfaction and help to enhance service delivery process. Social Implications: Public services are the services which are being provided by government to citizens, which include services from issuance of birth certificate till issuance of death certificate, services covering major events of entire lifecycle of an individual. The ameliorate service quality can enhance public service satisfaction precipitating in good governance. Originality/Value: This study addresses quality of public service delivery system in India through a carefully designed research. This research will be of greater value to scholars involved in research area of public service delivery system, public service quality and satisfaction in developing countries.

**Keywords:** Citizen Charter, Governance, Public Administration, Right to Service, Service Quality, Service Satisfaction, Stipulated Time

## 1. Introduction

Prompt delivery of services to citizens has always been a matter of concern for the governments. Red-tapism, bureaucratic apathy, and un-justified delays create barriers for citizens to avail hassle free and timely services from the government. Right to service act has been a response for solving this issue which citizens face day in and day out. The aim of this initiative is to deliver time bound and better services to the citizens. In Karnataka, which has a population of over 60,000,000, the right to service bill was passed in December, 2011, and the act was implemented across the state on April 2<sup>nd</sup>, 2012. The emergence of right to service act has moulded the need of in-time service delivery and albeit with varying degree of success, has transformed governance from in-ward looking and administrative focused to out-ward looking with focus towards delivery of services. With a need to provide, at present, the state has been delivering 1181 services through 100 government institutions under the umbrella of right to service act. Government services included services of each department under government. The services covered here begin from birth of individual as birth certificate service till the death of individual, which includes death certificate, and in between this life cycle of individual important event like service related to caste certificate, marriage certificate, service verification for job, property or Khatha certificate are included under government services, covering services related to all the major events of one's life. The improved level of service quality can enhance service satisfaction among citizens resulting in good governance. In Karnataka right to service act is popularly known as 'Sakala', which means in-time or good time in regional language of Kannada. Right to service act also enables digitized service delivery with help of department of e-Governance, Karnataka. Hence, ensuring standardized and simplified services to citizens. Whenever a citizen applies for a notified service under right to service act 15-digit GSC (Guarantee of Services to Citizens) number is generated, which is an acknowledgement for citizens for online tracking of the intermediate stages of their service application. The act also includes two tier appeal system which can be utilized by the citizens in cases of delay or unjustified rejection of their service applications. In case of delay, upon demand the citizens shall be compensated at Indian Rupees 20 per day to up to a threshold of Rupees 500. The paid compensatory cost is recovered from the salary account of defaulting officer. In India the state of Karnataka has been delivering highest number of services with highest in-time disposition rate of 95.06% under right to service act when compared with its other counter parts. As on 31-October 2022, the government of Karnataka has received 287,534,805 service applications and disposed 285,707,962 service applications under right to service act. Highest ever in the country! However, there have been 14,341,109 delayed disposals and 18,487,313 rejected applications. Hence, it becomes necessary to analyze the quality of service being delivered to citizens and also the service satisfaction achieved by the citizens by availing the services under right to service act. The purpose of this research is to understand citizen perception of service quality, determine the major factors which affect the quality of Government service delivery system and access Citizen service satisfaction. A model has been proposed and hypothesis have been formulated to test the proposed model.

## 2. Review of Literature on Service Quality and Satisfaction

The foundation to understand and develop service quality was laid by the research conducted by Shostack (1982, 1984), Gronroos (1984) and Parasuraman et al. (1985). Perceived service quality model (Groonroos, 1984) and SERVQUAL (Parasuraman et al., 1985) were the two models to gain maximum attention among the research scholars. Service quality is based on multiple dimensions. There is no consistency in agreement to nature and content of these dimensions. European scholars have exerted greater influence to study dimensions of service quality. Service quality is based on multiple dimensions (Groonroos, 1984; Parasuraman et al., 1985), also, there is no consistency in agreement to nature and content of these dimensions (Cronin & Brady, 2001). European scholars have exerted greater influence on study of dimensions of service quality. Service quality has been defined in-terms of interactive quality, physical quality and corporate (image) quality (Lehtinen & Lehtinen, 1982). Two service quality dimensions have been identified by Gronroos, which include the functional aspect involving "how" service has been delivered and

technical aspect "what" service has been provided. Recent conceptualization of service quality has been proposed by Rust and Oliver (1994). The model was a 3-dimensional model which emphasizes on consumer's evaluation of 3 dimensions of the service encounter: a) Customer employee interaction (function quality) b) Service environment, and c) outcome (technical quality). The research suggests that service environment affects the perception about service quality (Spangenberg et al., 1996). However, it is not easy to distinguish the notion of service environment from functional quality, which has been suggested in the literature. Brady & Cronin (2001) had proposed four factors comprising the service environment, facility design, ambient condition and social factors. The explanation stated by Brady & Cronin (2001) tells that service environments are the elements of the service delivery system. To summarize, it seems favorable to include the elements of service-environment as components of functional dimensions. Technical quality attributes are least explored (Wilkins et al., 2007; Wu & Ko, 2013; Yu & Ramanathan, 2012). The literature suggests that most of the researcher scholars have ignored technical dimension of service quality (Ladhari, 2012; Tamwatin et al., 2016). A few scholars have conducted qualitative studies to develop the factors of technical quality (Brady & Cronin, 2001; Ladhari, 2012). For instance, Powpaka (1996) conducted in-depth study to analyze pertinent dimensions of technical quality followed by open-ended surveys conducted by Brady and Cronin (2001). Wu and Ko (2013) proposed three dimensions of technical/outcome quality which are presented as follows: a) Sociability: It refers to the number, type and behavior of the people within the service-setting b) Valence: It refers to customers' post-consumption assessments of whether the service outcome is acceptable or unacceptable c)Waiting time: It refers to the amount of time that customers spend waiting to be served.

In numerous services, customers are also part of service availing process, this results customer also being part of his/her own service satisfaction (Mills, 1983). Customer service satisfaction has been significantly influenced by perceived quality of service and trust between organization and its customers (Dehghanpouri, Soltani & Rostamzadeh, 2020). Customer satisfaction and customer interpretations are interrelated dimensions. Information and communication technology usage skills is directly proportional to citizen service satisfaction in e-government services (Anwer, Esichaikul, Rehman & Anjum, 2016). Improved service quality enhances citizen participation in government system resulting in greater convenience, awareness, engagement, transparency, and information sharing between Government and its citizens (Sujeet, Hafedh & Srikrishna, 2013). Brand image and staff sincerity play a major impact on customer service satisfaction (Hosseini, & Behboudi, 2017). The relation between customer loyalty and service quality is partially mediated through customer service satisfaction (Chodzaza, & Gombachika, 2013).

The importance of e-Governance in upholding the government's accountability, and transparency has been vital and a system of rewards has been put in place in most of the states of India (Chandra & Malaya, 2011). The government of India's interoperability to a uphold citizen-centric service delivery system has been commendable. The integration of the Enterprise architecture concept with technology in e-Governance has been well-planned (Paul & Paul, 2012). Digitizing government services by redefining and restructuring outdated service delivery processes with the help of information and communication technology to provide a more-citizen centric service delivery system is necessary, and government process re-engineering has been the key (Shwetha & Muralidhar, 2018). e-Governance has three main contributors which include e-administration, e-citizens, e-services and e-society. Services must be aligned with the changing needs of citizens and stakeholders to develop the economy of the country (Wang & Hou, 2010). Effective implementation of e-Governance services in India considering the poverty, awareness, literacy, basic infrastructure, bandwidth, multilingual and cultural issues has been challenging (Gupta & Bansal, 2013). Availability of information remains key to good governance, which can be achieved only through good coordination between sub-departments (Singh & Bhatia, 2016). A model of e-governance service quality based on transaction frequency being a moderator of citizens' perception of quality has been tested by Li and Shang (2020). The functionality aspect of citizen experience is domination factor in determining service quality in the e-Government framework (Sukmaseteya et al., 2018). The quality of e-Governance services is directly proportional to the merit of the Government's image as well as the success or failure involved in developing a service-oriented government (Ma et al., 2008). e-Governance-friendly policies and laws help in upholding citizen-centric services in the public sector (Gant & Gant, 2002). The induction of information and communication technologies into the government service delivery system shall boost the efficiency of the entire system (Muhammad & Hromada, 2022). Very few studies have been carried out related to the government service delivery in developing countries like India and the studies which have been conducted focused on the government perspective rather than the citizen perspective (Lee, 2011). The research gap highlights that there have been no prominent studies associated with citizen perception of government service quality and citizen service satisfaction in developing countries, especially in India. Therefore, there is a need to carry out many number of research and bring about reform in the government's citizen service delivery system by examining the existing models and developing new models to address the government service delivery challenges faced by developing countries across the globe.

## 3. The Proposed Model and Research Hypothesis

We propose that successful governance can be determined by the quality of service delivered by the government and service satisfaction attained by the citizens by availing these services. Parasuraman *et al.* (2005) defined service quality as the extent to which a website facilitates efficient and effective shopping, purchasing and delivery of services and products". Taking this as reference, we define government 'service quality as the extent to which government facilitates efficient, effective and time bound delivery of public services through technology, information, interaction, and communication to its citizens'. Based on research framework, a total of 12 hypothesis have been formulated as represented in Figure 1, which associates: Citizen service satisfaction with service quality, Citizen service satisfaction with different dimensions of service quality and association between service quality and its factors. Based on this discussion, the hypothesis has been:

H1: The service satisfaction of citizens with respect to the Government of Karnataka's right to service act is positively associated with the quality of services experienced by the citizens/applicants.

H2: Service satisfaction of citizens with respect to the Government of Karnataka's right to service act is positively associated with functional quality experienced by citizens/applicants.

H3: Service Satisfaction of citizens with respect to the Government of Karnataka's right to service act is positively associated with technical quality experienced by the citizens/applicants.

H4: The functional quality of services of the Government of Karnataka's right to service act is positively associated with quality of the services experienced by citizens/applicants.



Figure 1. Service quality framework research model with hypotheses.

H5: The technical quality of the Government of Karnataka's right to service act is positively associated with quality of the services experienced by citizens/ applicants.

H6: The functional quality of services of the Government of Karnataka's right to service act is positively associated with tangibles factor of the Government of Karnataka's right to service act experienced by citizens/ applicants.

H7: The functional quality of services of the Government of Karnataka's right to service act is positively associated with reliability factor of the Government of Karnataka's right to service act experienced by citizens/ applicants.

H8: The functional quality of services of the Government of Karnataka's right to service act is positively associated with responsiveness factor of the Government of Karnataka's right to service act experienced by citizens/ applicants.

H9: The functional quality of services of the Government of Karnataka's right to service act is positively associated with assurance factor of the Government of

Karnataka's right to service act experienced by citizens/ applicants.

H10: The functional quality of services of the Government of Karnataka's right to service act is positively associated with empathy factor of the Government of Karnataka's right to service act experienced by citizens/ applicants.

H11: The technical quality of services of the Government of Karnataka's right to service act is positively associated with Valence factor of the Government of Karnataka's right to service act experienced by citizens/ applicants.

H12: The technical quality of services of the Government of Karnataka's right to service act is positively associated with Waiting time factor of the Government of Karnataka's right to service act experienced by citizens/ applicants.

#### 3.1 Empirical Methodology

The data used in this study have been collected from the state of Karnataka, India. The questionnaire used in the

Dimensions Constituting Service Quality	Factors which contribute to the dimensions of service quality	Operational Definitions	Variable count
	Tangibility	Appearance and physical facilities	4
Functional Quality	Reliability	Perform promised service accurately and dependably.	4
	Responsiveness	Provide prompt service and willingness to help customers	3
	Assurance	Courtesy of employees, knowledge, and ability to inspire trust and confidence	3
	Empathy	Individualized attention provided by firm to customers and care.	5
Technical Quality	Valence	It refers to post consumption assessments of whether the service outcome is acceptable or unacceptable	5
	Waiting Time	It refers to the amount of time that customer spend waiting to be served.	3

Table 1. Details of variables, factors and dimensions

survey was pre-tested prior to data collection and welldesigned after relevant discussion with subject experts and officials associated with the service delivery process of Government of Karnataka. A five-point Likert Scale was selected for collecting responses. An online survey was conducted through a simple random sampling of citizens who had availed of services under the Right to Service Act. As many as 27 variables were included in the survey instrument. 1005 valid responses were collected. Respondents were from all 31 districts of Karnataka. The details of 7 factors and 27 variables mapped to them are provided. (Table 1).

# 4. Data Analysis Techniques and Tools

SPSS was the software used for data analysis along with

Microsoft Excel as and when required. Factor analysis was used to reduce the number of variables to a manageable set/identify variables which form the factors. Descriptive statistics assisted in describing factors which constituted the dimensions of service quality. A reliability test was conducted using Cronbach's alpha, and Cronbach's coefficient was traced. Pearson's correlation coefficient was used to measure the strength of the association between factors/dimensions. Pearson's correlation is also useful in finding linear relations between two variables in causal or case of associative research hypothesis. The hypothesis proposed in this study is associative in nature, and involves an association between citizen service satisfaction and quality of service, its dimensions, and constituent factors.

Table 2. Descriptive statistics, communalities and Cronbach's Alpha values for tangibility, responsiveness,	
reliability, assurance, empathy, valence, and waiting time	

S.N	Factor	KMO Value	Mean	Stand- ard Devia- tion	Initial	Extra- ction	Factor Loading	Cronbach's Alpha if Item Deleted	Variance Expla- ined (%)	Cronbach's Alpha
VAR01			3.18	1.112	1.000	.825	.908	.890	- 80.677	
VAR02	Tangi- bility .854	054	3.20	1.091	1.000	.787	.887	.902		.920
VAR03		.854	3.22	1.110	1.000	.806	.898	.896		
VAR04			3.33	1.174	1.000	.809	.900	.896		
VAR05	Relia- bility .856	056	3.20	1.107	1.000	.799	.894	.892	- 79.951	.916
VAR06			3.26	1.124	1.000	.802	.895	.891		
VAR07		.830	3.21	1.117	1.000	.786	.887	.896		
VAR08			3.29	1.053	1.000	.811	.901	.888		
VAR09	Respons- iveness	.751	3.23	1.092	1.000	.818	.904	.856	82.555	.894
VAR10			3.24	1.088	1.000	.828	.910	.847		
VAR11			3.25	1.098	1.000	.831	.912	.844		

S.N	Factor	KMO Value	Mean	Stand- ard Devia- tion	Initial	Extra- ction	Factor Loading	Cronbach's Alpha if Item Deleted	Variance Expla- ined (%)	Cronbach's Alpha
VAR12			3.26	1.119	1.000	.819	.905	.852		
VAR13	Assur- ance	.751	3.22	1.088	1.000	.824	.908	.848	82.385	.893
VAR14			3.23	1.100	1.000	.829	.910	.843		
VAR15			3.21	1.089	1.000	.742	.861	.914		
VAR16			3.26	1.089	1.000	.789	.888	.907		
VAR17	Empathy	.906	3.19	1.074	1.000	.779	.882	.908	77.201	.926
VAR18			3.25	1.098	1.000	.779	.883	.908		
VAR19			3.26	1.090	1.000	.771	.878	.909		
VAR20			3.19	1.201	1.000	.803	.896	.911		
VAR21			3.20	1.091	1.000	.772	.878	.916		
VAR22	Valence	.908	3.17	1.092	1.000	.768	.876	.917	78.253	.930
VAR23			3.29	1.163	1.000	.804	.897	.911		
VAR24			3.31	1.136	1.000	.766	.875	.917		
VAR25			3.25	1.203	1.000	.842	.917	.860		
VAR26	Waiting Time	.754	3.22	1.131	1.000	.848	.921	.853	83.865	.903
VAR27			3.28	1.118	1.000	.826	.909	.872		

#### Key Inferences from Table 2:

- Factor analysis has been used to construct the factors which contribute to the dimensions of service quality of Sakala as perceived by the citizens availing the service from Government of Karnataka.
- Kaiser-Meyer-Olkin measure of samplingadequacy and Bartlett's test of sphericity are the two

tests which were used to determine applicability of factor analysis to determine factors.

- It was found that value of Bartlett's test of sphericity is significant (p<0.001, p = 0.000).
- Also, it is observed from the table that Kaiser-Meyer-Olkin measure ranges from 0.751 to 0.908, which is greater than the minimum suggested.
- Communalities indicate the amount of variance in each variable which is being defined by the factors.

Communalities are essentially an extension of factor loadings. The communality of a variable is the sum of the loadings of a particular variable on all other extracted factors. Greater value of communality of a variable indicates that specific variable is adequately reflected through extracted factors. This proves reliability of factor analysis.

- Component matrix value squared for an item gives the value of communalities for that item or variable. For item under tangibility 'VAR01' component matrix value is of .908 when squared (regression r-square is correlation square, indicating the amount of variance that was accounted for, which indicates 82.5% of variance in item 1 is explained by factor 1 or tangibility we retained) it comes to .825 which is the value of communalities for same item. Similarly, relationship holds good for all the other variables stated under their respective factors. From the table communalities are higher than 0.6 for all variables included, this ensures that variables are adequately being reflected by the extracted factors.
- From the table, Cronbach's alpha value for tangibility is ".920". Therefore, we have a very high reliability, this is only possible when we are using a highly tested scale. To verify this result we can refer the column "Cronbach's Alpha if item deleted" which will tell us that what will be the impact on Cronbach's Alpha value if any one of the defined parameters are deleted. The results indicate that if any one of the 4 parameters are deleted than the "Cronbach's Alpha" would be reduced to a value lesser than the existing value. This indicates that our scale would not be helped if any one of these parameters under tangibility is deleted. Further strengthening the parameters which we had selected for "Tangibility". Similarly, the explanation holds good for all the other factors and their respective variables.
- Table 2 exhibits the total variance explained for all factors which affect the dimensions of service quality of Government of Karnataka's right of service act. 7 factors were extracted and their Eigen values have been greater than 1. When these factors were extracted, it was observed that 77.201% to 89.446% of the variance would be explained.

- Regarding factor loadings, it is known that contribution of variables in defining factor is dependent on co-relation coefficients, also called as loadings. Greater the loading value, greater will be the contribution of variable in defining a factor. From the table, it is evident that all factor loadings are very high ranging from .858 to .949. Therefore, the variables could define their respective factors.
- From Table 2, factors were positively formed using factor analysis and identified as the factors affecting dimensions of functional quality and technical quality which together contribute to service quality of Government of Karnataka's right to service act, in turn affecting the citizen service satisfaction.

#### 4.1 Summary of Hypothesis Testing

#### Key Inferences from Table 3:

- Through Pearson Correlation it has been found that Pearson correlation coefficient between Citizen service satisfaction and service quality is high/significant (r = .743) and hence the hypothesis HI is accepted.
- The table also represents that there is an association between citizen service satisfaction and various dimensions of service quality that are functional quality (r = .739), technical quality (r = .733). Hence the Hypothesis H2 and H3 are also accepted.
- The association of functional quality on tangibility, reliability, responsiveness, assurance, and empathy are very high (significant) and respectively "r" values are .954, .965, .955, .957, and .969 respectively and hence hypothesis H6, H7, H8, H9 and H10 are accepted.
- Through Pearson Correlation it has been found that the Pearson correlation between technical quality and the factors which constitute information quality, which are Valence and Waiting Time are very high (significant) and "r" values have been .975 and .977 and hence Hypothesis H11 and H12 are accepted.
- Therefore, the hypothesis relationships are supported by empirical data as represented in Figure 2.

Hypothesis	Association	"r" value	Closeness	Results	
H1	SQ and CSS	.743	High	Accepted	
H2	FQ and CSS	.739	High	Accepted	
H3	TQ and CSS	.733	High	Accepted	
H4	FQ and SQ	.990	Very High	Accepted	
H5	TQ and SQ	.991	Very High	Accepted	
H6	Tangibility and FQ	.954	Very High	Accepted	
H7	Reliability and FQ	.965	Very High	Accepted	
H8	Responsiveness and FQ	.955	Very High	Accepted	
H9	Assurance and FQ	.957	Very High	Accepted	
H10	Empathy and FQ	.969	Very High	Accepted	
H11	Valence and TQ	.975	Very High	Accepted	
H12	Waiting Time and TQ	.977	Very High	Accepted	

Table 3. Summary of hypothesis testing

CSS - Citizen Service Satisfaction; SQ- Service Quality; FQ- Functional Quality;

TQ- Technical Quality;



Figure 2. Service quality framework research model with hypothesis values.

#### 4.2 Regression Analysis

Regression analysis is carried out with citizen service satisfaction on service quality and citizen service satisfaction on functional quality and technical quality. The results are provided below:

#### 4.2.1 Citizen Service Satisfaction on Service Quality

On conducting regression analysis to analyse impact of service quality on citizen service satisfaction, as represented in Table 4, it has been found that 74.3% association is existing between service quality and citizen service satisfaction. Also, it has been found that 55.2% of variation in citizen service satisfaction is captured by service quality.

Regression model is significant, which indicates that citizen service satisfaction can be expressed as proportional change in service quality.

Therefore,  $CSS = \beta * SQ$ 

CSS -> Citizen Service Satisfaction

SQ -> Service Quality

Constant value was insignificant and hence has been removed from the developed model.  $\beta$  coefficient corresponding to Table 4 is 0.743, this indicates that for every unit change in service quality, there shall be a corresponding change of 0.743 units in Citizen Service Satisfaction. It has been found that model is significant.

#### 4.2.2 Citizen Service Satisfaction on Functional Quality and Technical Quality

On conducting regression analysis to assess the impact of functional quality and information quality on citizen service satisfaction as represented in Table 5, it is found that 74.4% association exists between functional quality and technical quality on Citizen service satisfaction. Also, it has been found that 55.2% of variation in citizen service satisfaction is captured by functional quality and technical quality. Regression model is significant and indicates that citizen service satisfaction can be expressed as proportional change in functional quality and technical quality. Therefore, the satisfaction does matter in Government service delivery system.

1	
Correlation Coefficient ( R )	.743
Adjusted RSquare	.552
β Coefficient (t value, p value)	.743 (t = 35.552; p <.000)
ANOVA – f value (p value)	1263.910 (p <.001)

**Table 4.** Impact of service quality on citizen service satisfaction – regression analysis results

**Table 5.** Functional quality and technical quality on citizen servicesatisfaction – regression analysis results

Correlation Coefficient ( R )	.744		
Adjusted RSquare	.552		
βCoefficient	Functional Quality is .457 (t = 6.082; p = <.001)		
(t value, p value)	Technical Quality is .294 (t = 3.908; p < .001)		
ANOVA – f value (p value)	633.042 (p < 0.001)		

Therefore,  $CSS = \beta 1 \ge FQ + \beta 2 \ge TQ$ CSS -> Citizen Service Satisfaction FQ -> Functional Quality TQ -> Technical Quality

### 5. Discussion and Conclusion

The purpose of this research was to identify success factors for government's service delivery under right to service act. While doing so we utilized service quality and use as antecedent of citizen service satisfaction. Based on result of empirical analysis all the 12 hypothesis have been accepted. In this study citizen service satisfaction has been considered as an indicator of success of government's service delivery under right to service act, the assumptions being that citizens are satisfied with quality of service availed by them. From the data analysis it can be inferred that variance explained by factors leading to citizen service satisfaction is 55.2%. The result is in sync. with previous research outcomes considering service satisfaction as success measure in success of e-commerce, IT-systems and web pages (Seddon & Kiew, 1996).

We found government service quality has a relation with citizen service satisfaction considering 7 factors mapped under two dimensions of service quality. Previous studies also suggest that service quality is important antecedent of service satisfaction (Gronroos, 1984; Cronin & Taylor, 1992). This indicates that factors Waiting Time, Responsiveness, Assurance, Tangibility, Reliability, Valence, and Empathy are considered by citizens while availing government services. However, factors Waiting Time, Responsiveness, Assurance and Tangibility are more important factors compared to remaining three factors while determining the government service quality. Citizens are more concerned regarding how quickly their in-time service requirement is met, what kind of assistance and support they receive while availing the service from government, courteousness with which government executives treat them and inspire trust in them and the information shared through notice boards and visual notifications. The factor's reliability, valence and empathy were given lesser if not greater importance by citizens. Reason behind this could be, because the guarantee of service delivery is provided by government itself, citizens have been more reliable rather than the suspicion caused in cases of guarantee provided by private firms. The post consumption evaluation valence was also not given greater importance as Sakala already addresses the post consumption evaluation process through its appeal system which assists citizens in cases of unjustified delays and rejections. Empathy received the least importance when compared with other factors this is an indication of people accepting the factor that Government being neutral body it acts equally and impartially towards all its citizens rather than providing customized services like private institutions. As per the empirical analysis of data we derived that there exists a direct proportionality relation between service quality of government services as well as citizen service satisfaction. This means greater the quality of service delivered greater will be the service satisfaction attained by the citizens.

The first and foremost contribution of this research is identifying the success factors and dimensions of government service delivery system, which are also the factors contributing the quality of service being delivered to citizens. Secondly, the association between dimensions of service quality as well as overall service quality on citizen service satisfaction. The findings of this research have led to stress on the importance to concentrate on the factors which work behind the scenes in satisfactoryprovisioning of these government services to citizens and needs and means of measuring citizen service satisfaction. It is important for government departments, institutions to be aware about the factors which contribute towards service quality and enhance the citizen service satisfaction and experience while availing these services from the government. The results of this research could assist governments to identify key-quality criteria for the services under right to service act which are valued by the citizens. The results also assist government to get better understanding of the key issues which influence the citizen requirements and satisfaction level associated with the service delivery system.

## 6. Challenges Faced by Government and Further Scope for Research

From the year 2017, the Government of Karnataka has shifted its focus towards digitization of services through its e-Governance initiatives. Digitization has had its advantages as well as dis-advantages. The main advantage is of faceless and cashless delivery of services to citizens. Citizens can apply from the place of their comfort through their handheld or desktop devices for these services. The digitization has also caused an alarming trend in rejection of applications. Prior to year 2017, the states average cumulative rejection rate was 5.77% (considering 2012-2016 data). However, since digitization the average rejection rate has increased to 8.52% (considering 2017-2021 data). It has been found that larger part of increase in the rejection rate is due to incomplete or unclear documents uploaded by applicants while applying for these online services. Hence, IT literacy plays a crucial role in such cases. The use of sophisticated technological equipment's, scanners, printers, monitors especially in some parts of rural Karnataka, is directly proportional to IT literacy in those areas. With Government planning to increase the number of end-to-end online services, introduction of self-help Kiosks to enhance the user experience of availing services, IT literacy would play a crucial part in success of these initiatives, and this shall be major scope for research scholars as we move forward.

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