

DESIGN AND DEVELOPMENT OF SCALE OF MEASUREMENT FOR EFFECTIVE SERVICE DELIVERY IN INDIA

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ABSTRACT

Purpose - *The service delivery to the needy citizens in time bound manner and the recipients' satisfaction, and officers' affectivity in service delivery have been a domain of study in good governance and public management in the Indian socio-economic and administrative environment. The satisfaction of citizens and the effectiveness of service delivery from the government machinery have not created any service continuum that is the need of the time. Thus, the purpose of the current study is to develop a multidimensional scale to measure the effective service delivery in civil administration and the satisfaction of service recipients in the Indian context.*

Design/methodology/approach - *The study is pragmatic and investigative in nature, and has been conducted on officers who are engaged in service delivery and the common citizen who look for and received services from the government in the state of Uttar Pradesh, a most populated state in India. Two questionnaires were developed separately for the officers and the citizen just to gauge the service delivery effectiveness and the overall service satisfaction on various dimensions as investigated from the literature and searched out from the discussions of the stakeholders Construct validation using exploratory factor analysis (EFA) approved the structure of scale with eight dimensions.*

Findings - *It was observed that service quality in higher education setting comprises seven dimensions viz., Clarity of Organizational Structure, Service Specialization, Management by Objectives, Service Reliability, Authority and Responsibility, Service Empathy and Communication, Organizational Strategy, Service Responsiveness, Strategy and Performance as (predictor) independent variables and Effective Service Delivery as (criterion) dependent variable from the officers'. In the same context the Decentralization of Services (DS), Public Service Delivery (PSD), Service Delivery Action (SDA), Allocate Efficiency of Services (AES), Service Accountability (SA) as predictor variables and Overall Public Satisfaction (OPS) as criterion variable from the service recipients view.*

Research limitations/implications - *The study holds implications for most of the departments of government that deliver services to citizens including Land and Revenue, Medical services, Public distribution & civil supply, Transport services etc. The scale developed can be used by practitioners as a diagnostic tool for identifying poor and/or excellent service performance. Originality/value – While studying in service delivery phenomenon and its various dimensions, we have come across different aspects in the governance and broader sphere of service delivery, this study lays emphasis on Effective Service Delivery (ESD) by engaged*

officers and the Overall Service Satisfaction (OSS) by the citizen. The study is an attempt toward developing and empirically validating a measurement scale for service delivery in the state of Uttar Pradesh.

The present research study aims to investigate the process of service delivery by the government officials in the state of Uttar Pradesh one of the largest states in Indian provinces and to develop a unifying scale to measure its effectiveness and satisfaction. Services are intangible and have a high level of variability as well as heterogeneity and their performance depends on the people, process, and the evidence as to how much the service recipients are satisfied. The satisfaction of the service recipients evokes positive features of the service offering department, government officers for their basic rights and the benefits of the government schemes introduced from time to time. The service sector is a wide area of study, particularly the services rendered by the government. This study investigates the various dimensions of the service delivery system and relevant variables. We have come across the two fundamental aspects of service – effective service delivery mechanism and the level of satisfaction of the service receivers (citizens) in the area of a sample of the study. The study is based on primary data collected through questionnaires and schedules from officers of the government engaged in service delivery and from the common citizens who come for availing the services. Public Service Deliveries (PSD) are the responsibility of public authorities in any system. They are provisions on behalf of the governments, but these provisions for the public are not adequately met as per public opinion. Public services are intended, not to meet the objectives or preferences of consumers or producers, but to further objectives that policy-makers consider desirable policy from the government side. We find no comprehensive and established theory on service delivery but during the literature review, we come across an inductive basis of hypothesis generation and certain models of organizational performance. In the research, the meaning and extent of public service management and its delivery suggest leadership style, organization culture, human resource management, strategic process, etc.

Keywords: Service Delivery, Government Services, Service Satisfaction, Departmental Performance, Scale Design & Development, Measurement of Effectiveness in Services.

INTRODUCTION

Public services are largely provided by the state, through government departments and specialized agencies, while private sector contribution is becoming increasingly common in all areas of service provision. Privatization and contracting-out services encourage competition at the local level. Public service delivery is no longer the exclusive prerogative of state agencies in national and local governments but also involves combinations of state and private actors, and civil society organizations that are directly engaged in the delivery of services (Akinboade et al., 2012).

Services like health, education, drinking water and sanitation etc. are the most common services provided by local governments. Police, fire safety, transportation, housing and social welfare may fall under local government jurisdictions. Local governments are also given responsibility for a range of public services, such as infrastructure in the form of roads and bridges, public buildings and housing etc, especially in larger jurisdictions and urban authorities. In our country, specialized services for low-income groups are the responsibility of state governments, such as social welfare, credit systems, agricultural extensions etc. Local

authorities in rural areas often perform a range of functions directed at agriculture and rural development, environmental management, disaster prevention and rehabilitation (Batley, 2004).

The public service areas are decided through a political interaction that accomplishes the service matters through monetary importance and makes significant support for the government. How well the public sector functions reflects the improvement of key parameters/variables. Governments in developing and less-industrial nations are confronting to improve the public service administration. Undoubtedly, proper public service assistance conveys a positive image of administration which is essential for accomplishing financial development, social-economic development, goals of education, health, public satisfaction etc. These issues of service delivery are significant in socio-economic environments, where the governments should make provisions for effective service delivery. The government need to have options to activate incomes, guarantee execution in the delivery of public services through different strategic measures, subsidies the cost of goods and services, and straightforwardly acknowledge and address the grievances of citizens, performance of tasks, legislative, parliament and other responsible establishments (Churchill, 1979).

A possible scenario for the future is that service delivery systems will become more integrated (Wardell, 1988) and the resources will become scarcer. Social pressures, such as the increase in the proportion of the population will increase both the demand for services and there would be need for an integration of public services as described earlier. The management process would likely respond to the concerns of both costs of services and quality of services. The integration of delivery systems will reduce resource uses and service agencies. However, integrated service delivery management plays an important role in coordinating services and in facilitating interactions between service recipients. Society will move toward more integrated, sophisticated systems of service receipts that would create one of the most important challenges in the future for the integration of formal and informal sources of service availability. The organizational theory offers useful insights into the changing role of service integration. As organizations grow, they become increasingly complex (Hall & Norburn, 1987). Units within the organization become increasingly specialized. This requires effective mechanisms and managerial processes for coordination among various functions (Blau, 1970). In today's services environment, organizations must afford both processing and changing approaches.

The performance of public service providers is judged by multiple communities (consumers, taxpayers, staff, and politicians). Furthermore, each of these communities may use different criteria to judge the standard of public services and may apply different weights to the same criterion (Rainey, 2009). It follows that there is no fixed and universally applicable set of criteria for evaluating whether performance is high or low. Nevertheless, public services have tangible elements (quantity, speed of delivery, effectiveness) that are likely to be valued by all populations (Tiwari 2022).

METHODOLOGY (IDEATION & CONCEPTION)

The traditional focus of theoretical public service economics or market-driven service economics has typically been on setting taxes and public expenditure levels. It has not paid a lot of attention to the mechanism of public service delivery. To understand the challenges faced in reforming public service provision, theoretical as well as empirical work is needed. We need good theory to structure our empirics and to think through the logic of cases where evidence is limited. We need evidence to evaluate the relevance of our theoretical framework, and also to

see what works at the ground level. Some work Besley & Ghatak (2006) is beginning to understand the problem of effective public-service delivery by drawing on ideas from the literature on the new political economy and on the economics of organizations and incentives.

The following steps were followed:

1. Extensive literature review and focus group interviews led to the item generation for scale development.
2. Designed instrument was tested, deemed fit and administered to collect the data.
3. The scale was tested for reliability and validity.
4. Factor analysis was used to assess the construct validity of the scale.
5. The item-to-total correlation and coefficient were used to assess the reliability of the scale and improve upon items to improve the reliability of the scale.

ITEM GENERATION

The first step in the scale development process was the generation of a list of items for each variable in the conceptual framework. Multiple measures for each of the dimensions of public service delivery were modified and developed from the items of other existing scales. Four focused group interviews were conducted to assess public perception. The researcher as moderator took care that the questions moved from the general to the specific. Each focus group session lasted for about 20 minutes. Given the financial and time constraints, the note-based analysis was chosen to optimize the balance between severity and costs. As recommended by Krueger & Brazeal (1994), notes were reviewed subjectively to identify common themes.

We have thought to conceptualize two dimensions of service delivery. First, we thought about the effective service delivery by the officers and their performance. Second, we developed a schedule for the service recipients' who aspire to receive the services and their overall service satisfaction. We have followed Chirchil (1979) pattern in the design and development of these two instruments.

On the basis of the review and synthesis of relevant literature on service quality across the world, and also the focused group interviews, an initial pool of items that explained the dimensions of public service delivery was developed. The data that were collected were analyzed through the use of SPSS-24 to assess the psychometric properties of the scale (Davis, 2004).

We finalized ten constructs (one dependent variable and the other nine independent variables) and designed an instrument to measure officers' effective service delivery (ESD) as the dependent variable and the other nine independent variables which are Clarity of organization structure (COS), Service specialization (SP), Management by objectives (MBO), Service reliability (SR), Authority and responsibility (AR), Service Empathy and Communication (SEC), Organizational Strategy (OS), Service responsiveness (SR) and Strategy and performance (SP). We validated the instrument which is in form of a questionnaire for its face validity with expectations in the service quality/ delivery domain and found it suitable for a pilot study for further construct and item validation. The instrument now consists of ten constructs and 72 items (questions). For scientific validity of the instrument, we conducted the pilot test and administered the question to the 172 service delivery officers and found the following results.

Cronbach (1951) alpha value that we got from processing the data in SPSS-24 software, both the construct validity and items validity. Cronbach's Alpha value is 0.88 for 10 (the same) number of constructs/ variables and it has arrived at 0.95 for 66 items as nine items of lower loading were eliminated from the study. The Kaiser-Meyer-Olkin Measure of Sampling

Adequacy (Bartlett's Test of Sphericity) has come to 0.84 which is above the threshold value of 0.60. In this way, our instrument is now scientifically reliable and valid after passing the pilot test and application of various relevant tests (Ismail & Yusof 2009).

We conducted Principal Component Analysis (PCA) for extraction values. Communalities represent the percentage of variance explained by the extracted components. This explains the proportion of each variable's variation explained. It is the sum of squared factor loading. The first column is the name of the variables and the second column is the 'initials'. The initial value of the communalities in Principal Component Analysis (PCA) is 1. The third column 'extraction' shows the proportion of each variable's variation captured by PCA. This value ranges between 0 and 1. When the value is near 1 that means the variable is well represented and the reverse for the value is closer to '0'. If the commonality is low for an item, the reason might be that the item was poorly designed. We receive 76.33% of the coverage of our study which is more than adequate in the social science discipline/study. If the item has very little variance the commonality would be low.

Table 1 Variance explained and extraction sum of squared loading.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.681	45.879	45.879	14.681	45.879	45.879
2	3.066	9.583	55.461	3.066	9.583	55.461
3	2.259	7.061	62.522	2.259	7.061	62.522
4	1.691	5.283	67.806	1.691	5.283	67.806
5	1.581	4.942	72.748	1.581	4.942	72.748
6	1.148	3.587	76.334	1.148	3.587	76.334

Table 1 explained the cumulative squared loading (76.334) that the scale designed and tested cover 76.35% for its identified and generated items and there are still 23.65% unidentified variables that contribute to effective service delivery as rendered by the concerned officers responsible for public service delivery.

Table 2 Degree of strength between variables of effective service delivery.

	COS	SS	MBO	SR	AR	SEC	OS	ESR	SP	ESD
COS	1									
SS	.578**	1								
MBO	.465**	.795**	1							
SR	.372**	.741**	.852**	1						
AR	.359**	.659**	.738**	.814**	1					
SEC	.336**	.607**	.737**	.757**	.836**	1				
OS	.251**	.536**	.587**	.692**	.658**	.633**	1			
ESR	.235**	.444**	.447**	.599**	.603**	.562**	.789**	1		
SP	.279**	.542**	.637**	.699**	.759**	.732**	.711**	.719**	1	
ESD	.306**	.600**	.761**	.764**	.782**	.785**	.684**	.614**	.822**	1

** Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis in which we find that effective service delivery (ESD) has

moderate and high degree strength of correlation nine for its independent variables (as shown in the table as COS, SS, MBO, SR, AR, SEC, OS, ESR and SP), it ranges from as high as .822 strong positive correlation between effective service delivery (ESD) to strategy and Performance (SP) (0.822) and the weak positive correlation between ESD and COS (.306). Similarly, SP has the highest correlation with AR ($r= 0.759$) and the lowest degree of correlation with COS ($r=0.306$). ESR has the highest correlation with OS (0.789) and the lowest degree with COS ($r= 0.235$). OS has the highest with SR (0.692) and lowest with COS ($r=0.251$). SEC highest with AR ($r= 0.836$) and lowest with COS ($r=0.336$). AR has highest with SR ($r= 0.814$) lowest with COS ($r=0.359$). SR is highest with MBO ($r=0.852$) and lowest with COS ($r=0.375$). MBO highest with SS ($r=0.795$) lowest with COS ($r=0.465$). SS degree of strength of relationship with COS ($r=0.578$). The regression equation has been developed as per the results of regression analysis in which the absolute values have been preferred to take into consideration.

The most important nine factors that determine the delivery of services by the concerned officers are - Clarity of Organizational Structure (COS), Service Specialization (SS), Management by Objectives (MBO), Service Reliability (SR), Authority and Responsibility (AR), Service Empathy and Communication (SEC), Organizational Strategy (OS), Extent of Service Responsiveness (ESR) and Strategy and Performance (SP). Effective public service delivery thus has nine constructs/ variables and a total of sixty-six items that were asked from the sampled responding officers in the sampling area.

Likewise, we identified five factors in overall service satisfaction as perceived by the common people in the service delivery performance i.e. Decentralization of Services (DS), Public Service Delivery (PSD), Service Delivery Action (SDA), Service Allocation Efficiency (SAE) and Service Accountability (SA). The overall service satisfaction by the service recipient has five constructs/ variables and a total of thirty-two items that were asked from the service recipients who are our respondents in the sampling area.

Table 3 Degree of strength of relationship between the predictors of overall service satisfaction.

Constructs	DS	PDS	SDA	AE	SA	OPS
DS	1					
PDS	.650**	1				
SDA	.551**	.710**	1			
AE	.125**	.196**	.243**	1		
SA	.559**	.670**	.635**	.169**	1	
OPS	.629**	.743**	.675**	.057	.711**	1

**Correlation is significant at the 0.01 level (2-tailed).

Decentralization of Services

Decentralization may strengthen the citizen-local politician or administration relationship of accountability, and thereby the other relationships of accountability for service delivery. Decentralization of management authority down to the level of service providers and communities through the creation of community-based organizations with the representation of service providers and users, such as education, health, and provisions of water availability, is being explored as a promising approach to improving services. The 21st century has seen

increased attention to the delivery of public services on the one hand, and greater decentralization of power and responsibility for these services on the other. The challenge to researchers is to provide the knowledge base so that these decisions will improve the welfare of these needy people.

Transparency in Service Delivery

The present time span required to realize such results may have to be charted in multiple years than a single year or two, to be sure, but it is not too early to begin looking for some signs of achievement. The service recipients have been lodging complaints with public service providers certainly since the beginnings of settled society, often with little effect. In such cases, the response has generally been at the discretion of the officials involved, but in recent years some local governments have instituted mechanisms to guarantee the desired response to public complaints.

Service Delivery Action

Citizen participation in administrative decision-making thus includes goal setting, determination of strategies, policies, monitoring and evaluation of government services. The functional or practical areas for citizen involvement in economic development, education, environment protection, public health, policing and public safety etc. are essential. There is a need for clear mechanisms for engagement and articulation of community interests. Poor information management and failure to disclose information regarding local development make citizens unfriendly to local development and provide opportunities for corruption (Singh et al., 2010)

Prudent Allocation of Services

Moreover, service allocation is ultimately what distinguishes one organization from the other and are the key elements through which organizations can gain an advantage over the other organization. It is especially difficult for organizations whose service delivery process is complex that need to reduce operation costs, reduce the complexity of the process, and utilize the resource personnel within the organization.

Service Accountability

It is usually observed that accountability refers to the conception that public officials should be held responsible for their actions while in office. At the same time, there must be a clear endorsement by which they can be punished in case they fail to adhere to those norms and values. Similarly, there should be specific benefits for public officials. Right from the conceptualization, accountability is considered a key determinant of the state of governance. Thus, strict observation of accountability in the management of public affairs promotes good governance while the lack of it causes a major course of bad governance.

Public Satisfaction

Overall service satisfaction has traditionally been conceptualized and measured as a

cognitive disconfirmation of some comparison standard. Satisfaction is believed to contain an effective dimension without which service recipients' responses cannot be fully accounted for gauging overall satisfaction level. Cognitive and affective responses can thus be seen as distinct and having a separate influence on satisfaction formation. Many researchers have taken Service performance as the best indicator of both the quality of service and overall service satisfaction. Along with that, service recipients' fairness and perceived equity have been suggested to add to the explanation of overall service satisfaction against the services delivered by the officials.

Items of Scaling To Effective Public Service Delivery

Items were generated from the insights of intensive literature review and personal experiences of the researchers/scholars and face validity, as well as criterion validity, were scaled up consequently. The effective service delivery in public sector organizations may be evaluated on the following independent variables.

Organizational Structure of the Department of Public Service

Organizational Structure (COS) may be considered the anatomy of the organization, providing a foundation on which the organization functions. Organizational structure is believed to affect the behaviour of organization members. All organizations have an administrative structure. In well designed organizational structure the efforts are to minimize or at least regulate the influence of variations on the organizational performance. Several researchers highlighted the importance of organizational structure both at the organization level and subunit levels for the performance (efficiency, and effectiveness) of organizations. Organizational performance or effectiveness is a variable dependent on the clarity of organization structure that has been envisioned and measured in various ways across the various process of service delivery.

Service Specialization

The service recipients derive the social benefits from long-term relationships with service-providing departments of the government, including professional services like education and medical etc. The social benefits have been presumed to include feelings of familiarity, personal recognition, friendship, rapport, and social support because of the service specialization of the people engaged in service delivery as they are promptly handling the matters and grievances of the public and offer the desired service in minimum cost of time and efforts spending.

Management by Objectives

The effectiveness of MBO systems is a means for leading self-managing teams. Researchers are of opinion that the proposition that MBO systems can be an effective tool to improve group effectiveness with respect to both group productivity and job satisfaction. As a practical implication, it shows that if group members are committed to their service delivery objectives the service delivery can be improved and the members will be satisfied with their teamwork (Verma, 2017).

Service Reliability

Reliability is an inter-disciplinary subject area applicable to power supply, transportation, education, public service distribution, banking, health care, etc. The effectiveness of these organizations cannot be appreciated without the concept of reliability. The reliability concepts to service providers are a particular example of the well-canvassed general problem solving by applying quantitative methods where the desired outcomes are intangible. Service reliability judgments depend on the recipients' experiences and information on the specifications, service realization and service receipt.

Sense of Responsibility and Authority

Authority should be accompanied by an equal amount of responsibility. Delegating the authority to someone else doesn't imply escaping from given responsibility. The responsibility, therefore, is the duty of the person to complete the task assigned to him. A person who is given the responsibility should ensure that he accomplishes the tasks smoothly, happily and as per the objectives assigned to him. If the tasks for which he was responsible are not completed, then he should make excuses but should be held accountable. Responsibility without adequate authority leads to discontent and dissatisfaction among the service delivery officials as we understand that responsibility flows from bottom to top together with the authority (Voorberg et al., 2017).

Empathy as Relaxing and Confidence

Empathic communication is a fundamental way in which we realize with the service-seeking citizens from the organization/ department. How well we make rapid and accurate inferences about the feelings, goals, attitudes, motivations, beliefs, intentions, and behaviors of such service-seeking public, determines to a large extent what we contribute in a specific service as well as our perceived value to be human beings. Empathetic understanding is therefore both an important determinant of how well we communicate with each other as well as a personal characteristic that facilitates our ability to convince other service-seeking people. Empathy and communication are a tools we use every day to understand others and to share our thoughts, feelings, and personal experience.

Service Delivery Gaps

These measurements of the gap have created vacuum/ gaps that the public service delivery personnel must keep in service delivery strategy- (a) The listening gap (b) The service design and standards gap (c) The performance gap and (d) The communication gap. The organizational service delivery strategies must be made and planned in such a way that it should fulfill the expectation of service recipient's aspirations from the government for various services of government departments (Tshiyoyo, 2009).

Responsiveness in Services Delivery

The service responsiveness also focuses on the degree to which the department offers an excellent service information system to receive, analyze, record and track public needs. Service responsiveness includes organizational cultural support that reflects the ability of a department

to provide public representatives with a clear service vision and has the support of service responsiveness in the internal environment and teamwork (Robinson, 2007).

Service Strategy and Performance

When analyzing this relationship between strategy and performance, the traditional barriers measures lack relevance in the service delivery, as the officials do not react to the public focus service delivery. Performance measures cover the range of service operations practices and the relevant literature that has addressed service functional strategy to the development of the service delivery system in order to match the peoples' expectations with their perceptions. Service organizations effectively measure the service performance and design strategies required in the proper and effective delivery of services (Rice, 2007).

Effective Service Delivery

Effective service delivery systems require, an optimal combination of inputs like Clarity of Organizational Structure, Service Specialization, Service Reliability, Service Management by Objectives, Authority and Responsibility, Service Empathy and Communication, Organizational Strategy, Service Responsiveness, Strategy and Performance (Russell & Bvuma 2001).

The performance of public service providers is judged by multiple communities (consumers, taxpayers, staff, and politicians). Furthermore, each of these communities may use different criteria to judge the standard of public services and may apply different weights to the same criterion (Rainey, 2009). It follows that there is no fixed and universally applicable set of criteria for evaluating whether performance is high or low. Nevertheless, public services have tangible elements (quantity, speed of delivery, effectiveness) that are likely to be valued by all populations (Kampen et al., 2006).

Issues and motivation for improving public service delivery are one of the biggest challenges worldwide. Public services are a key determinant of quality of life that is not measured like per capita income or on any other measurement scale. Organizing public service provision is deemed to be a core function of government (Walker et al., 2006). The imperative needs of the poor and marginalized class of people make it more challenging. The most demanded services are either peripheral (preventive care in the case of epidemics) or other internal services (health, education and welfare) Table 4.

S.No.	Title of the research paper	Name of the Author (s)	Major Findings
1.	Alternative service delivery and public service transformation in South Africa	Edward W. Russell & Dick G. Bvuma (2001)	The public interface meets service delivery objectives. It plays a role of promoting a comprehensive framework of disseminating best practice. Managerial approaches empower public sector management particularly in service delivery.
2.	The Politics of Service Delivery Reform	Richard Batley (2004)	Three pillars are the leaders, the supporters and the resisters of public service reform and advocates principal-agent framework. Principals over political policy-makers as their agents and policy-makers

			are the principals over public service officials as their agents.
3.	Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector	Jennifer Davis (2004)	Author presents empirical information and magnitude of corrupt behaviors documented in water supply and sanitation service provision in South Asian localities. If corruption has been reduced, two concomitant drivers are observed: a shift in the accountability networks of service providers, and a change in the work environment.
4.	Public Management Reform and Organizational Performance: An Empirical Assessment of the U.K. Labour Government's Public Service Improvement Strategy	Richard M. Walker George A. Boyne (2006)	The authors measured apparent variables and tested against external indicators of organizational performance.
5.	Assessing the relationship between satisfaction with public service delivery and trust in government	Jarl K. Kampen, Steven Van De Walle & Geert Bouckaert (2006)	Satisfaction with service delivery and trust in the corresponding public institution display high correlations, suggesting a shared component that cannot be interpreted as a causal effect.
6.	Does Decentralisation Improve Equity and Efficiency in Public Service Delivery Provision?	Mark Robinson (2007)	The author sought to ascertain the decentralized service delivery on equity and efficiency outcomes. Two main conclusions arise from a review of available evidence in less-developed countries: (1) the quality and equity of access have not improved with the decentralization of health and education services; and (2) equity and efficiency outcomes are closely related to the availability of financial resources and local government capacity.
7.	A Primer for Developing a Public Agency Service Ethos of Cultural Competency in Public Services Programming and Public Services Delivery	Mitchell F. Rice (2007)	Authors focused on culturally appropriate and culturally effective public programs and public services. Cultural competency in public services programming and public services delivery and addresses cultural competency concerns in human resources training, education, and service delivery.
8.	Public service delivery in the democratic republic of the Congo: an overview of leadership, governance and public policy interrogation	M.M. Tshiyoyo (2009)	The author explores policy interpolations in an attempt to find the extent to which exigencies of the end product of service delivery that can be addressed in a public organization in the context of administrative governance imperatives. It posits an intellectual and organizational triangulation of policy provisions can vital stimulus for leadership and service delivery.
9.	The relationship between knowledge sharing, employee performance and service delivery in public sector organizations: a theoretical framework	Mohd Bakhari Ismail & Zawiyah M. Yusof (2009)	The authors explain the term 'service' that has different meanings, thus posing problems, particularly to researchers in the area. The ultimate goal of public service is to deliver quality services to citizen. Public organizations are bureaucratic in nature, which impedes orders and directions among employees both vertically and horizontally. They attempted to develop a theoretical model of the relationship between bureaucratic role, performance and service delivery.
10.	Public service quality and customer satisfaction: exploring the attributes of	Seung-Kyu Rhee and June-Young Rhab (2009)	Four main qualities of public service are identified: process quality, outcome quality, design quality, and relationship quality. It suggest critical

	service quality in the public sector		attributes of public service quality for customer satisfaction that differ according the types of customers in the public sector. Final customers (beneficiaries) give priority to the process and outcome qualities, whereas intermediary customers (social workers) have high regard for the design and relationship qualities.
11.	E-governance for improved public sector service delivery in India, Ethiopia and Fiji	Gurmeet Singh, R.D. Pathak and Rafia Naz & Rakesh Belwal (2010)	Benefits of e-governance in developing countries are the same as those in developed countries but there are many potential benefits that remain unrepaid by developing countries as a consequence of their unlimited use of e-governance. Based on these assertions, the researchers tried to evaluate and assess the potential of e-governance initiatives in India, Ethiopia and Fiji. Time, cost and red-tape procedures are major constraints in public service delivery.
12.	An analysis of citizen satisfaction with public service delivery in the Sedibeng district municipality of Africa	Oludele Akinloye Akinboade, Emilie Chanceline Kinfack & Mandisa Putuma Mokwena (2012)	Adequate service delivery enhances socio-economic development. Public services are a key determinant of quality of life and an important element of any poverty reduction strategy.
13.	Coping During Public Service Delivery: A Conceptualization and Systematic Review of the Literature	Lars L. G. Tummers,, Victor Bekkers, Evelien Vink, Michael Musheno (2015)	Conceptualizing public service delivery and developing a coherent framework and analytical views account of how coping during public service delivery.
14.	Management of Bureaucrats and Public Service Delivery: Evidence from the Nigerian Civil Service	Imran Rasul & Daniel Rogger (2016)	The authors are of opinion that management practices matter: increasing bureaucrats' autonomy is positively associated service delivery
15.	Changing public service delivery: learning in cocreation	William Voorberg, Victor Bekkers, Krista Timeus, Piret Tonurist & Lars Tummers (2017)	Major focus on Service Co-creation - where citizens and public organizations work together to deal with societal issues - is increasingly considered as a fertile solution for various public service delivery problems. Authors combine insights from the co-creation and show that state and governance traditions may form an explanation for whether co-creation, learning and policy change occurs.

ITEM GENERATION FOR OVERALL SERVICE SATISFACTION

Similar to effective public service delivery item generation we have generated from the insights of intensive literature review and personal experiences of the researchers/scholars and face validity as well as criterion validity were scaled up consequently. These items have been used in the formation of our research instrument (questionnaire/schedule) to gauge satisfaction level of services as the recipient's perception.

Decentralization of Service

Delivery of services requires strong relationships of accountability between the actors in

the service delivery chain. Weaknesses in service-delivery outcomes can be attributed to a breakdown in one or both of the links along the long route of accountability. The basic services such as health, education, water and sanitation etc, are the responsibility of the state governments. The service delivery is behind most decentralization efforts as these services are consumed by the local public. The long route of accountability is what leads some to decentralization as a means of strengthening accountability and thereby improving service delivery.

Transparency in Public Service Delivery

By improving transparency, building citizens' voices and offering structured management between service providers, consumers of public services (service recipients) and social accountability mechanisms can ensure that services match each other. If social accountability initiatives do deliver better governance, improve service delivery and empower poor people, then as a consequence citizen well-being would result social improvement. People should eventually enjoy good health, longer life expectancy, consume more nutritious food, and gain education that enhances their life prospects and satisfaction.

Service Delivery Action

Public participation has been instrumental in safeguarding against ill-treatment by public servants and political leaders. It has also provided a control against excessive safe play, carefulness being vested in authorities in public service delivery procedures. Community participation in service delivery action has provided checks and balances against unnecessary interference and disregard for professionalism and meritocracy in the public service sector. Here we focus on direct participation, which emphasizes the importance of citizen participation in the formulation of service delivery action.

Service Allocation Efficiency

Public service offering departments are facing issues of service allocation efficiency and hence the private partnership has been introduced for continual improvement while service offering at lower cost, responding to common public demands. Overcoming these challenges is the key to the survival of government image and giving effects to people's preference. Moreover, service allocation is ultimately what distinguishes one organization from the other and are the key elements through which organizations can gain an advantage over the other organization. It is especially difficult for organizations whose service delivery process is complex that needs to reduce operation cost, reduce the complexity of the process, and utilize the resource personnel within the organization.

Service Accountability

It can be observed that accountability refers to the conception that public officials should be held responsible for their actions while in office. At the same time, there must be a clear endorsement by which they can be punished in case they fail to adhere to those norms and values. Similarly, there should be specific benefits for public officials.

Overall Service Satisfaction

Overall service satisfaction has traditionally been conceptualized and measured as a cognitive disconfirmation of some comparison standard. Satisfaction is believed to contain an effective dimension without which service recipients' responses cannot be fully accounted for gauging overall satisfaction level. Cognitive and affective responses can thus be seen as distinct and having a separate influence on satisfaction formation.

Table 5 Variance explained and the extraction of sum of square loading.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	24.775	32.599	32.599	24.775	32.599	32.599
2	8.140	10.710	43.309	8.140	10.710	43.309
3	4.226	5.560	48.869	4.226	5.560	48.869
4	3.505	4.612	53.481	3.505	4.612	53.481
5	2.991	3.936	57.417	2.991	3.936	57.417
6	2.423	3.188	60.605	2.423	3.188	60.605
7	2.124	2.794	63.399	2.124	2.794	63.399
8	1.901	2.501	65.901	1.901	2.501	65.901
9	1.641	2.159	68.060	1.641	2.159	68.060
10	1.607	2.114	70.174	1.607	2.114	70.174

Table 5 shows the adequacy of a sample against the population that has been found confident and adequate in the study. Items generated and data process reveals that items generated covers 70.17% and 29.83% coverage are denied revealing that there are other variables and effects which were not assessed in the study of scale development for the measurement of the dependent variable.

Table 6 the model summary of dependent (criterion) and independent (predictor) variable.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
ESD	.895 ^a	.801	.798	.34440
a. Predictors: (Constant), SP, COS, SS, ESR, AR, OS, MBO, SR, SEC				
OSS	.825 ^a	.680	.679	.38185
a. Predictors: (Constant), SA, AE, DS, SDA, PDS				

β Coefficients (ESD)

Constant Value -.057

β Coefficients (OSS)

Constant Value - .001

Effective Service Delivery (ESD) = .057+.031 (clarity of organizational structure) - .057 (service specialization) + .092 (management by objectives) - .004 (service reliability) - .002

(authority and responsibility) + .330 (service empathy and communication) +.059 (organizational strategy) + .015 (extent of service responsiveness) + .356 (strategy and performance) + e

Overall Public Satisfaction (OPS) = .001 + .157 (Decentralization of Services) + .323 (Public service deliver (PSD) + .198 (Service delivery action) - .125 (Service Allocative Efficiency) + .303 (Service Accountability) + e

Table 7 shows testing of hypothesis for effective service delivery (esd) from officers view.

Hypothesis Testing for ESD	Mean	f	Sig.	Results
H₀₁: There is no significant relationship /impact of effective service delivery and Clarity of Organizational Structure	1.972	3.560	.000	Not Accepted/ Rejected
H₀₂: There is no significant relationship /impact of effective service delivery and Service Specialization	6.048	33.517	.000	Not Accepted/ Rejected
H₀₃: There is no significant relationship /impact of effective service delivery and Management by Objectives	15.592	91.776	.000	Not Accepted/ Rejected
H₀₄: There is no significant relationship /impact of effective service delivery and Service Reliability	15.685	100.498	.000	Not Accepted/ Rejected
H₀₅: There is no significant relationship /impact of effective service delivery and Authority and Responsibility	19.036	266.829	.000	Not Accepted/ Rejected
H₀₆: There is no significant relationship /impact of effective service delivery and Service Empathy and Communication	22.259	518.711	.000	Not Accepted/ Rejected
H₀₇: There is no significant relationship /impact of effective service delivery and Organizational Strategy	12.733	123.994	.000	Not Accepted/ Rejected
H₀₈: There is no significant relationship /impact of effective service delivery and Extent of Service Responsiveness	12.567	183.368	.000	Not Accepted/ Rejected
H₀₉: There is no significant relationship /impact of effective service delivery and Strategy and Performance	19.481	534.767	.000	Not Accepted/ Rejected

Table 8 shows testing of hypothesis for overall service satisfaction (oss) from service recipient's view.

Hypothesis Testing for OSS	Mean	f	Sig.	Results
H₀₁: There is no significant relationship /impact of Overall public service satisfaction and decentralization of services	2.833	14.627	.000	Not Accepted/ Rejected
H₀₂: There is no significant relationship /impact of overall public service satisfaction and public service delivery.	3.884	31.140	.000	Not Accepted/ Rejected
H₀₃: There is no significant relationship /impact of overall public service satisfaction and public service delivery action.	3.343	19.373	.000	Not Accepted/ Rejected
H₀₄: There is no significant relationship /impact of overall public service satisfaction and service alocative efficiency.	1.022	2.220	.003	Not Accepted/ Rejected
H₀₅: There is no significant relationship /impact of overall public service satisfaction and service accountability.	4.687	31.014	.000	Not Accepted/ Rejected

CONCLUSION

An attempt has been made to analyze the findings of the study on both the aspects of the public service delivery process in Uttar Pradesh and the overall service satisfaction of the service recipients. In the present research study, we identified the nine most important factors that determine the delivery of services by the concerned officers which are - Clarity of Organizational Structure (COS), Service Specialization (SS), Management by Objectives (MBO), Service Reliability (SR), Authority and Responsibility (AR), Service Empathy and Communication (SEC), Organizational Strategy (OS), Extent of Service Responsiveness (ESR) and Strategy and Performance (SP). Effective public service delivery thus has nine constructs/ variables and a total of sixty-six items that were asked from the sampled responding officers in the sampling area. Likewise, we identified five factors in overall service satisfaction as perceived by the common people in the service delivery performance i.e. Decentralization of Services (DS), Public Service Delivery (PSD), Service Delivery Action (SDA), Service Allocation Efficiency (SAE) and Service Accountability (SA). The overall service satisfaction by the service recipient has five constructs/ variables and a total of thirty-two items that were asked from the service recipients who are our respondents in the sampling area.

We found a significant relationship /impact between Effective Service Delivery (ESD) and Clarity of Organizational Structure. Organization structure is believed to affect the behaviour of the organization's members. There is a significant relationship /impact of effective service delivery (ESD) and Management by Objectives (MBO). As MBO may be viewed as a goal-setting technique, for management, goal-setting theory and research can be used as an explanatory basis. There is a significant relationship /impact between effective service delivery and Service Reliability. Reliability is an interdisciplinary science and is more applicable to areas such as power supply, transportation, education, public service distribution, banking, health care, etc. There is a significant relationship /impact between Effective Service Delivery and Authority and Responsibility (AR). Authority should be accompanied by a commensurate and equal amount of responsibility. There is a significant relationship /impact between Effective Service Delivery (ESD) and Service Empathy and Communication (SEC). Empathy means the action of understanding and being sensitive to the feelings, thoughts and experiences of others and caring, paying personal attention, and providing services to them. We found a significant relationship /impact between Effective Service Delivery and Organizational Strategy (OS). The organizational service delivery strategies must be made and planned in such a way that it fulfill the expectation of the service needy individuals aspiring for government services from various government departments.

IMPLICATIONS

The scale for service delivery in public services has been designed with a reliable and valid analytical tool for the measurement of the service recipients' perceptions. This can be used as a measurement tool that allows for solving problems of service provision. Based on the feedback from the respondents, the service delivery machinery can reframe its strategies and tactics to redesign the public service delivery system.

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