



ASSESSMENT OF SERVICE QUALITY DELIVERY IN RURAL DISTRICTS OF ZAMBIA

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ABSTRACT

This study assessed the quality of service delivery by councils in rural districts of Zambia, particularly Senanga Town Council. The study respondents were randomly selected from the residents of Senanga District in twelve wards and two hundred and fifty residents representing households from different wards were randomly selected to participate. Data were collected using an FM-SERVQUAL model questionnaire and analyzed using Social Statistics Package for Social Sciences (SPSS) and Mega Stat software. The results of the study show that out of four components, only one component of the working process met the minimum required level of quality service standards. The Human Capital, Technology and ICT, and Property Management components were all below the required service standards. On average, the Council's performance was below the required service quality standards. The study results also showed that there was no relationship between Senanga Town Council's service quality and customer satisfaction. There was no relationship between service quality components and customer satisfaction, although the results further showed that there was a significant relationship between technology and ICT and customer satisfaction. This means that technology and ICT have an impact on customer satisfaction in Senanga District.



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1. INTRODUCTION

Delivering consistently high quality services is one of the biggest challenges facing service organisations. Of course, this does not exclude the public sector, which is the main service provider to the people, especially in rural areas. It is well known that public organisations (especially those operating at local government level) face a more daunting task than those in the private sector in their efforts to deliver quality services to customers. According to Alex and Ondiek (2014), local governments usually have an inbuilt customer base that

gives them monopoly status and thus lag behind in their attempt to improve service delivery.

Local governments, as service providers to the public, should not be immune to the pressures that drive an organisation to succeed with quality services that satisfy customers and stakeholders (Asgarkhani, 2005). Quality is the most important factor for the transformation of local government services and a critical driver for improved citizen satisfaction (Rodriguez et al., 2009). Providing high quality and cost-effective public services is not an easy task, as it requires creating organisations

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with the right approaches, establishing clear ways of delivering services, and putting the right people in the right places to respond to people's needs. It also requires a combination of good policy development, successful policy implementation, a good understanding of citizens' needs and expectations, appropriate resources and technology, a responsive organisational culture and well-trained staff (Rodriguez et al., 2009). It is important that the local authority balances the revenue it receives with the high costs of providing more efficient services demanded by the community. Knowing what communities expect is a very important step in defining and delivering quality services. Obtaining feedback from citizens also provides valuable insight into how well the council (local authority) is meeting the needs of the community (Mokhlis et al., 2011).

1.1 The Statement of a problem

The efforts of the Government of the Republic of Zambia (GRZ) demonstrate the political will to ensure that councils deliver quality services to Zambians. Government's efforts go beyond the re-establishment of the Local Government Service Commission and the establishment of the Local Government Equalisation Fund (LGEF).

Despite government interventions to help councils improve service delivery, there have been some complaints in Senanga District about the quality of services provided by the council. For example, some residents claimed that in some areas of the district, refuse was left uncollected for weeks and sometimes months. Others complained that the way in which the council officers dealt with customers was not good at all. On the other hand, the council insisted that the provision of services to the community had steadily improved following the introduction of the Local Government Equalisation Fund (LGEF).

It was therefore important to check the validity of this claim and to assess the level of service quality that Senanga Town Council (STC) was providing to the community. Furthermore, no research had ever been conducted to assess the quality of service delivery in Senanga. The question to be asked is what has been the quality of service delivery in rural districts despite the establishment of the Local Government Service Commission and the creation of the Local Government Equalisation Fund?

1.2 Significance of the study

The study highlighted issues that would help local authorities appreciate the use of service quality management in their customer satisfaction. As the first study, it would help Senanga Town Council and indeed other councils across the country in Zambia and outside Zambia to identify areas that need consolidation in terms of service quality delivery.

The study would also determine whether or not the government's efforts in establishing the Local Government Equalisation Fund and increasing the allocation of the Constituency Development Fund (CDF) have been helpful to councils.

2. LITERATURE REVIEW

In order to meet the research objectives, the study preferred to use the FM-SERVQUAL instrument to assess residents' expectations and perceptions of services. According to Zahari et al. (2008), FM-SERVQUAL is capable of measuring service quality in the local government delivery system. The tool measures service quality in local government by comparing customers' perceptions and expectations of the quality of services provided.

2.1 Service quality

Service quality is an important dimension of organisational performance in the public sector (local government level) because the main output of local government is the provision of services. Service quality is a concept that has attracted considerable interest and debate in the marketing literature because it is difficult to define and measure, with no general consensus on either (Wisniewski, 2001). Service quality is commonly defined as the ability of the organisation to exceed or meet customer expectations. When expectations are greater than performance, perceived quality is less than satisfactory and customer dissatisfaction occurs (Parasuraman et al, 1985; Lewis & Mitchell, 1990). Service quality is defined as the degree of discrepancy between customers' normative service expectations and their perceptions of service performance (Parasuraman et al., 1985). In other words, service quality is measured by comparing customer perception and expectation ($SQ=P-E$).

2.2 Customer Satisfaction

A customer is a person who purchases goods or services offered by the organisation. Therefore, a customer is a stakeholder of an organisation who pays in exchange for the offer made to him or her by an organisation with the aim of satisfying a need and maximising satisfaction. Satisfaction is the customer's happiness with a product or service. The feeling of pleasure or disappointment that results from comparing the perceived performance or outcome of a product with their expectations can also be referred to as satisfaction (Kotler & Keller, 2009, p .789). Customer satisfaction (Talapatra et al., 2022) is also a key performance indicator used by organisations, particularly in a competitive environment. There is no specific definition of customer satisfaction as different authors come up with different definitions. However, it is very difficult to measure customer satisfaction because it is an attempt to measure a person's feelings.

2.3 Measuring service quality

The most widely recognised and used model in a variety of industries is the SERVQUAL (Service Quality) model. The model is used to identify gaps between an organisation's service quality performance and customers' service quality needs. It requires the development of an understanding of the perceived needs of the customer. The measured perception of service quality is then compared with customer expectations. Although it was originally designed and tested in private sector organisations, its developers Parasuraman et al. (1985, 1988) argue that SERVQUAL can be adapted to public sector organisations with minor modifications. Contemporary research (Wisniewski, 2001; Rhee & Rha, 2009) suggests that SERVQUAL can be successfully applied in the public sector, provided it is modified to suit the context. The SERVQUAL instrument developed by Parasuraman et al. (1988) is the best known measure of service quality. Modifications to the SERVQUAL model have led to the development of other models such as SERVPERF (perception only model), INTSERVQUAL, FM-SERVQUAL and others.

The INTSERVQUAL model was developed by Frost and Kumar (2000), while the FM-SERVQUAL model was developed by Zahari et al. (2008). SERVPERF, like SERVQUAL, uses the attribute approach and measures only customer perceptions of service (Cronin & Taylor, 1992). INTSERVQUAL was used to measure the expectations and perceptions of internal customers in a large international airline and SERVQUAL model was developed to measure service quality in local government. Each model developed on the basis of the original SERVQUAL was designed for a specific industry; therefore, the FM-SERVQUAL model was adopted for the area of this research. The FM-SERVQUAL mechanism is an effective diagnostic tool that identifies elements that are lacking in service quality, whether in physical or non-physical form (Zahari et al., 2008).

2.4 FM-SERVQUAL

The FM-SERVQUAL instrument is based on the original SERVQUAL and has undergone several modifications, including the use of an integrated facilities management framework that includes the measurement of 40 elements of human capital components, premises management, technology and ICT, and working processes (Sheefeni & Mutingi, 2016). FM-SERVQUAL measures service quality in the local government delivery system and is an essential tool for measuring service quality in local government by comparing customer perceptions and expectations of the quality of services provided by local government. The FM-SERVQUAL model differs from the original SERVQUAL because it considers elements of the integrated facilities management framework by making

several modifications to the original SERVQUAL by Parasuraman et al. (1988). FM-SERVQUAL defines the assessment of service quality by the formula $SQ=P/E$. The measurement variation P/E, where the perception of service quality received is asked in relation to the customer's expectation of what was actually received (Zahari et al., 2008). In the FM-SERVQUAL instrument, each dimension is represented by a set of measurement items in a questionnaire. The quality dimensions used in FM-SERVQUAL are briefly explained below according to Zahari et al. (2008):

Human capital management: This refers to the following: the politeness of the member of staff when dealing with customers; the way the member of staff dresses and appears to the customer; how the customer feels when the member of staff communicates with the customer; how easily a customer can access the member of staff; how easy it is for the customer to meet the member of staff; how well the member of staff is understood by the customer; how professional the member of staff is in dealing with the customer; how effectively and efficiently the member of staff deals with customer complaints; how the member of staff co-ordinates with other members of staff; how the member of staff interacts with the public; and how the member of staff co-ordinates with other external departments in the district.

Technology and ICT: These include: how well the website is kept up to date; how good and attractive the website is; how well toxic and solid waste is managed; how well the ICT system is able to store confidential documents; how well the technology is regularly updated to help deliver quality services; how attractive the physical facilities are to customers; how well the facilities are managed; and how fast and flexible the IT system is.

Property management: This refers to how well the offices are accessible to the public, how attractive the landscape of the area is, how friendly the facilities provided are to the customer, how attractive the counter layout is, how well the public areas are maintained, how clean the public toilets are, how well the business area is managed by the council, how well the drainage system is managed and how sufficient the parking is for the customer.

Working process: This refers to: how a customer feels when dealing with the Council; how the Council displays the Customer Charter; how well staff explain application procedures to customers when asked; how well customer records are kept; how the Council plans according to community needs; whether the Council consults residents when planning development; whether the Council provides services as promised in the Customer Charter; how the Council enforces laws and procedures; whether the Council acts as a facilitator to speed up development processes in the district; whether

the Council confirms the status of applications and states when there is a problem.

2.5 Review of empirical studies

Service quality in local authority: There has been a dearth of studies on service quality delivery in local government and Zambia is no exception, although much literature has been identified and carried out in various service sectors including banking, health, telecommunications, hospitality, real estate, tertiary institutions and hotels. The following is the literature on service quality in local government outside of Zambia.

The FM-SERVQUAL instrument was developed by Zahari et al. (2008). FM-SERVQUAL was developed to measure facility management services provided by local authorities in Johor, Malaysia. The formula used was adapted from Carman (1990) where perception and expectation were combined into items of the instrument. The instrument initially consists of 90 items covering five dimensions namely human, technology and ICT, property and process. The data was collected in two phases. Later, after the second phase, the items in the instrument were reduced to only 40 (Ilhaamie, 2010). The results of the study revealed that six elements in space management and five elements in technology and ICT management were identified below the service quality level, while 29 elements of other services were achieved with minimum quality level.

Mutingi and Sheefeni (2016) used a quantitative survey based on the FM-SERVQUAL instrument to assess the quality of service delivery in selected local authorities in Namibia. He studied the Oshakati and Ongwediva Town Councils. He used a sample of 100 residents from two local authorities, namely Oshakati and Ongwediva. The results show that a total of 58 service elements were identified as being above acceptable service quality for both Oshakati and Ongwediva Town Councils. Therefore, based on the findings, it was concluded that the quality of service delivery by the Oshakati Town Council was satisfactory, although residents had concerns about the working process component. For Ongwediva, the quality of service delivery was above the minimum acceptable level of service quality. So both councils had areas where they were doing well and areas where they needed to improve.

Donnelly et al (1995) used the SERVQUAL instrument to measure service quality in local government in the UK. The findings were that the SERVQUAL approach is readily adaptable to examining the quality of internal as well as direct service provision, and provides a mechanism both for tracking service quality over time and for comparing service quality between departments in councils or even between different authorities. The Parasuraman et al. (1988) scale was strongly endorsed. It was also emphasised that in order to measure service quality accurately, it is necessary to have sufficient

information about customer perceptions and expectations.

Scott and Shieff's (1993) study on service quality components and group criteria in local government identified six (6) dimensions in assessing service quality in local government. The findings suggest that local authorities need to consider strategic dimensions and sectoral views of dimensional importance if they are to maximise their performance in terms of customer perceived service quality.

Sintra et al. (2011) used a SERVPERF instrument to assess the quality of municipal services. The results show that municipal services generally perform well in the determinants, although satisfaction is consistently higher in the intangible dimension and lower in the assurance dimension, indicating that there is a confidential deficit in the real capacity of the municipality to consistently meet the standards, especially in terms of timeliness.

Alex and Ondiek (2014) conducted a study in Kenya. The study was on the assessment of service quality in local government in Kenya, using the SERVQUAL/RATER model. The results of the study showed that residents of Nakuru were very satisfied with the services provided by Nakuru Council and that there was no significant gap in the level of satisfaction and dissatisfaction in various services provided by the Council, except for education support services and transport services.

A study conducted in Zimbabwe on the quality of service delivery in Zimbabwean urban councils, the case of Bindura, concluded that the quality of service delivery by Bindura City Council fell far short of the expectations of residents. This was attributed to inadequate and disintegrated service delivery and management strategies. Human resource issues are among the reasons.

The above studies, which used SERVQUAL and SERVPERF models, did not consider the service quality in the context of integrated facility management in local authorities. Therefore, in order to take into account the service quality in the framework of integrated facility management in Local authorities, Zahari et al. (2008) developed the FM-SERVQUAL instrument to measure the service quality in Local authorities, which Sheefeni and Mutingi (2016) also used to measure the service quality in Local authorities in Namibia.

In most of the previous studies, external customers were used as respondents because they are the best people to assess the service quality provided by the local authority. Officers could not be used because they may not foresee the outcome of their own services provided to customers.

Service quality in Zambian local authorities: There is not much literature in Zambia that is directly related to service quality delivery in local authorities (councils). From the available literature on service delivery in local government in Zambia, there is no study that has used models such as SERVQUAL, SERVPERF and FM-SERVQUAL to measure service quality in councils. However, there is a lot of literature on service quality in other service sectors such as banking, health etc. that have used models such as SERVQUAL in Zambia.

The few related literatures in Zambia on service delivery in Local Authorities/Councils among others are briefly reviewed below:

A study by Lolojih, (2012) on 'Local Government Administration and Service Delivery in the Third Republic' concludes that local authorities are finding it difficult to ensure the delivery of adequate quality services to their communities in an efficient and effective manner due to factors such as poor financial capacity, lack of adequate and appropriate equipment and lack of qualified staff. Due to the lack of equipment, local authorities have had difficulties in, among other things, ensuring garbage collection and disposal, maintaining old roads and/or constructing new ones, effectively responding to community calls for fire extinguishing, pest control, general cleanliness of the environment, providing adequate clean water and sewerage services, and servicing land allocated for development. The lack of qualified staff, despite overstaffing, was attributed to the councils' inability to offer attractive salaries. Residents from the three districts of Lusaka, Choma and Luwingu all expressed dissatisfaction with the services provided by local authorities.

Yasin, (2012) in his research on Local Development Planning and Management in Rural District the case of Chongwe found that Chongwe District Council now called Chongwe Municipal Council did not have the managerial, technical and financial capacity to effectively plan, implement development plans and manage services in the district. In terms of service delivery, the majority of residents were not satisfied with the services provided by the council and some did not have access to services. The Council did not have adequate staff in terms of numbers and qualifications and also lacked equipment such as graders, commercial vehicles and bulldozers.

Lolojih (2012) conducted his research before the establishment of the Local Government Equalisation Fund (LGEF) and the re-establishment of the Local Government Service Commission (LGSC), while Yasin (2012) conducted his research before the re-establishment of the Local Government Service Commission (LGSC).

Relationship between service quality and customer satisfaction: Satisfaction and service quality have some similarities, but satisfaction is generally a broader concept, while service quality focuses specifically on dimensions of service (Wilson et al., 2012).

Some authors agree that service quality determines customer satisfaction. Parasuraman et al. (1985) proposed in their study that when perceived service quality is high, it leads to an increase in customer satisfaction.

A study conducted in Thailand using the SERVQUAL model on municipal service quality and citizen satisfaction by Mokhlis et al. (2011) found that service quality plays an important role in influencing customer satisfaction. Therefore, there was a relationship between municipal services and customer satisfaction.

The study conducted by Rahim (2009) using SERVQUAL model on service quality, customer satisfaction and loyalty towards JKR Malaysia found that there was a significant relationship between service quality and satisfaction.

3. THEORETICAL AND CONCEPTUAL FRAMEWORK

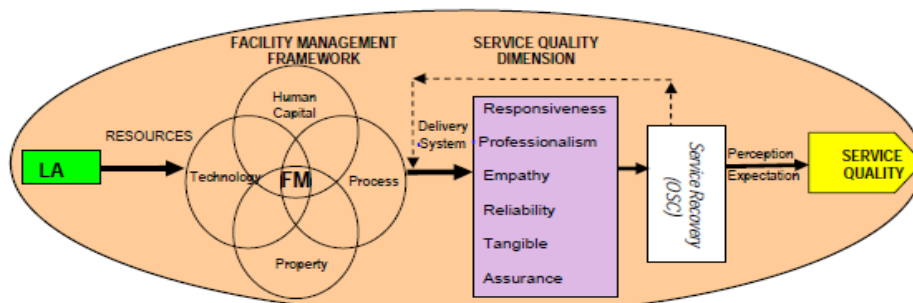
3.1 Theoretical framework

The theoretical framework of this study is based on the concept of facility management as a hybrid management discipline that encompasses management skills for technology, working process, property and human capital. The resources of local authorities (councils) include human capital, property, technology and working process. It is these resources that are used to deliver services to the community. The delivery system of local authorities (councils) should have generic dimensions for service delivery. This is shown in Figure 1 below. The feedback system is required and is called the Service Recovery System. The feedback system is established to overcome the challenges of customer dissatisfaction. The system can also be used as a One Stop Centre (OSC) to speed up the process of solving problems for customers. Customers then rate elements of the service by comparing perceptions and expectations. The comparison helps to know which elements of the services provided by the local authority (council) are above or below the desired quality level.

Parasuraman et al. (1988) provided the basic theory for measuring service quality using the five (5) dimensions. Parasuraman et al. (1988) suggested that the five dimensions (reliability, empathy, assurance, tangibility and responsiveness) are the generic dimensions that are appropriate to use in measuring service quality for all service sectors. However, Baker and Taylor (1994) described that the relationship of service quality varies from industry to industry. Zahari et al (2008) suggested

that new factors should be added and considered based on generic dimensions and appropriateness of service sectors. Therefore, FM-SERVQUAL was developed from the original SERVQUAL model to measure service quality in local government. Unlike the SERVQUAL model, the FM-SERVQUAL instrument

takes into account elements of the Integrated Facility Management Framework and is a modified version of the original SERVQUAL. In measuring service quality in Senanga Town Council, FM-SERVQUAL model was used for the purpose of this study.



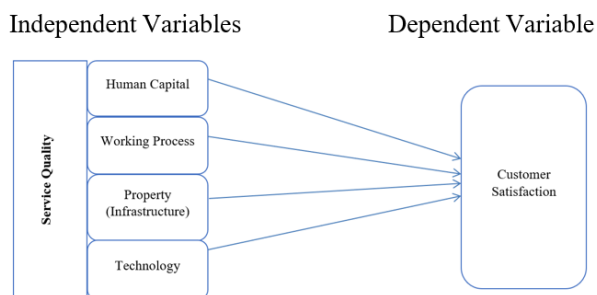
Source: Zahari et al. (2008)

Figure 1. Integrated facility management framework

Therefore, this research is based on the theory of the Integrated Facility Management Framework and this theory has helped immensely in achieving the set objectives compared to any other existing theory.

3.2 Conceptual framework

The relationship between the independent variables and the dependent variable used in this research acted as a conceptual framework, as shown in Figure 2.



Source: Authors (2023)

Figure 2. Conceptual Framework

3.3 Research hypotheses

On the basis of the research objectives, the theoretical and conceptual framework, and not forgetting the findings from the literature review, the study arrived at the following hypotheses:

- HA₁: Senanga Town Council meets the minimum service quality levels with respect to Human Capital
- HA₂: Senanga Town Council meets the minimum service quality levels with respect to Technology and ICT
- HA₃: Senanga Town Council meets the minimum service quality levels with respect to Property Management

- HA₄: Senanga Town Council meets the minimum service quality levels with respect to working process
- HA₅: Human Capital of Senanga Town Council is related to Customer Satisfaction
- HA₆: Technology and ICT of Senanga Town Council is related to Customer Satisfaction
- HA₇: Property Management of Senanga Town Council is related to Customer Satisfaction

HA₈: Working Process of Senanga Town Council is related to Customer Satisfaction.

4. RESEARCH METHODOLOGY

A quantitative survey design based on the FM-SERVQUAL instrument was used in this study to assess residents' expectations and perceptions of services. According to Zahari et al. (2008), FM-SERVQUAL is capable of measuring service quality in the local government delivery system. The tool measures service quality in local government by comparing customers' perceptions and expectations of the quality of services provided.

Both secondary and primary data were collected. Primary data is data that is directly generated as a result of the study, while secondary data is data that already exists and can be used for research. Primary data was collected using a survey form of the FM-SERVQUAL instrument by interviewing the participants from Senanga District and secondary data was obtained from various literature related to the topic under study. Most of the secondary sources used were from research conducted outside Zambia. This is because there is limited literature related to this study in Zambia. Other sources were materials which include journals, bulletins from the internet, university library, Senanga Town Council and publications.

This research was conducted using questionnaires in the form of survey form FM-SERVQUAL instrument. Two hundred and fifty questionnaires were distributed to targeted residents of Senanga representing households.

The data instrument was based on the Facility Management Framework which consists of 10 elements of technology and ICT, 10 elements of property, 10 elements of working process and 10 elements of human capital of the FM-SERVQUAL instrument (Zahari et al., 2008). Respondents were asked to indicate the level of agreement for each item of the data instrument based on a five-point scale ranging from 1 to 5 (1=poor; 2=fair; 3=satisfactory; 4=very satisfactory; 5=excellent).

The questionnaire used in this research consists of 44 questions divided into two parts. The first part is about service quality while the second part is about customer satisfaction. Table 1 below summarises the structure of the data instrument used in this research.

Table 1. Data Instrument – Structure

Parts	Components	Source
Service Quality	Human Capital	Adapted from Zahari et al., (2008)
	Technology and ICT	
	Property	
	Working process	
Customer Satisfaction	Customer Satisfaction	Adapted from Zeithaml et al., (1996)

4.1 Sample size

The target sample size was 250 respondents, mostly heads of households, out of a population of 14,321 (at the time the study was conducted). However, based on the number of households in the districts according to the 2010 census, this research needed only 202 respondents according to Yamane, (1967). This means that forty-eight was an allowance for non-respondents and invalid questionnaires.

Using Yamane's (1967) formula for determining the sample size from the target population of (14,321) fourteen thousand three hundred and twenty-one, a sample size of two hundred and one respondents was thus drawn:

$$n_o = N / (1 + (N(e)^2)) \quad (1)$$

Where n_o is the sample size, N is the population size, and e is the level of precision. $N=14,321$, $e= 7\%$ where Confidence Level is 95% and $P=0.5$ (maximum variability).

$$n_o = 14,321 / (1 + (14,321(0.07)^2)) = 201.2 \approx 202. \quad (2)$$

Therefore, the target sample size was very fine for this study.

5. DATA PRESENTATION AND ANALYSIS

5.1 Response rate

Two hundred and fifty (250) questionnaires were sent to targeted residents of Senanga District, representing households. However, out of the two hundred and fifty (250), two hundred (200) responded and completed their responses, representing 80%, while forty (50) did not respond at all, representing 20%. Therefore, the sample size was 200 respondents.

5.2 Demographic characteristics

The demographic profile of the 200 respondents who took part in this study by level of education, gender and age is shown in Table 2.

Table 2. Respondents Demographic Profile

Description	Frequency	Percentage (%)
Others	74	37
Grade 12 or Equivalent	63	31,5
Certificate	30	15
Diploma	25	12,5
Bachelor's Degree	7	3,5
Master's Degree	1	0,5
Female	102	51
Male	98	49
25 and below	32	16
26 to 35	57	28,5
36 to 45	54	27
46-55	40	20
56 and above	17	8,5
Total	200	100

Level of education: The level of education of the respondents was grouped into six (6) categories, i.e. Other, Grade Twelve (12) or equivalent, Certificate, Diploma, Degree, master's degree and Doctorate.

Table 2 shows that the largest proportion of seventy-four (74) of the respondents had other level of education, representing 37%, and sixty-three (63) respondents had Grade Twelve (12) or equivalent, representing 31.5%. Respondents with Certificates were thirty (30) representing 15% while Diploma holders were twenty-five (25) representing 12.5%. Respondents with Degree holders were seven (7) representing 3.5% while respondents with master's degree was only one (1) representing 0.5%. There was no respondent with PhD qualification or above.

Gender: The gender of the respondents was divided into two categories, female and male. Table 2 below shows that there were one hundred and two (102) female respondents representing 51% and ninety-eight (98) male respondents representing 49%.

The age range of the respondents was from 18 to 75 years grouped into five (5) categories i.e. 18 to 25 years;

26 to 35 years; 36 to 45 years; 46 to 55 years; 56 to 75 years.

The number of respondents aged 25 and below was 32 representing 16%, the number of respondents aged 26 to 35 was 57 representing 28.5%, the number of respondents aged 36 to 45 was 54 representing 27%, the number of respondents aged 46 to 55 was 40 representing 20% and the number of respondents aged 56 and above was 17 representing 8.5%.

5.3 Sample adequacy, reliability and validity analysis

In order to ensure the credibility of the instrument used and the data, analyses of sampling adequacy, reliability and validity were carried out. Kaser-Meyer-Olkin (KMO) test and Bartlett's test were conducted to test the adequacy of the data. The tests showed that all scores were suitable for further analysis using factor analysis. The results of these tests can be found in the appendix of the SPSS output.

Table 3 and Table 4 below show the Cronbach's alpha for each component and the loading of the items on each component. The cronbach's alpha for customer.

Table 3. Reliability and validity of study items in expectation and perception

Expectation		Human Capital	Technology and ICT	Property Management	Working Process		Perception		Human Capital	Technology and ICT	Property Management	Working Process
E1		0.704					P1		0.6			
E2		0.756					P3		0.7			
E3		0.779					P4		0.7			
E4		0.719					P6		0.8			
E5		0.813					P7		0.6			
E6		0.805					P9		0.7			
E7		0.734					P10		0.6			
E8		0.775					A	0.815				
E9		0.805					P13			0.64		
E10		0.719					P15			0.56		
A	0.92						P16			0.62		
E11			0.521				P17			0.66		
E12			0.705				P19			0.59		
E13			0.803				A	0.667				
E14			0.716				P22				0.66	
E15			0.8				P23				0.62	
E16			0.82				P24				0.71	
E17			0.802				P25				0.62	
E18			0.786				P26				0.55	
E19			0.805				P27				0.68	
E20			0.691				P28				0.69	
A	0.91						P29				0.67	
E21				0.54			A	0.811				
E22				0.738			P31					0.52
E23				0.716			P33					0.627
E24				0.786			P34					0.821
E25				0.72			P35					0.81
E26				0.723			P36					0.798
E27				0.715			A	0.77				
E28				0.785								
E29				0.624								
E30				0.708								
A	0.89											
E31					0.74							
E32					0.51							
E33					0.73							
E34					0.8							
E35					0.81							
E36					0.78							
E37					0.7							
E38					0.65							
E39					0.66							
A	0.88											

Table 4. Reliability and validity of study items of customer satisfaction

Customer Satisfaction		
CS2		0.751
CS3		0.645
$\alpha=0.276$		

5.4 Measurement of Senanga Town Council service quality

Service quality is defined by comparing the customer's perception and expectation of the service provided (SQ=P/E). FM-SERVQUAL is used to create a quality index based on a scale of 1 to 5.

The interpretation of the SERVQUAL tool is as follows:

- If the scale index is between 4.0 and 5.0, it means that the service is above the minimum required level of quality (P>E).

Table 5. Computation of Quality Index Scale

SN	FM- component	Mean expectation (E)	Mean Perception (P)	Acceptable Quality Index Scale (IS)	Quality Index Scale(P/E)x IS
1	Human Capital	3.743	3.396	3	2.72
2	Technology and ICT	3.972	2.764	3	2.088
3	Property Management	3.76	3.187	3	2.543
4	Working Process	3.802	3.88	3	3.061

Table 6. Interpretation of Quality Index Scale on Service Delivery

SN	FM COMPONENT	INDEX	INTERPRETATION
1	Human Capital	2.721	Service is below the required level of quality
2	Technology and ICT	2.088	Service is below the required level of quality
3	Property Management	2.543	Service is below the required level of quality
4	Working Process	3.061	Service has achieved a minimum required level of quality

The results for all the service components are summarised in Figure 3 below. The mean line in the figure below shows the boundary that separates the required quality levels from the levels that are below the required levels.

The results show that out of all four (4) service components, only one (1) met the acceptable quality index scale of 3.0. This component is the working process component. This means that the respondents' perception of service quality on this component is higher than the respondents' expectations of what Senanga Town Council provides. The remaining components that did not meet the acceptable quality index scale of 3.0 are technology and ICT, property management and human capital. This means that the respondents' perception of service quality for these three (3) components is lower than the respondents' expectations of what Senanga Town Council should provide for them.

Despite the fact that the three (3) service components met the acceptable quality index scale of 3.0, the human capital component was the best among the service components that met the acceptable quality index scale

- If the scale index is between 3.0 and 3.9, it means that the service has reached the minimum required level of quality (customer perception is equal to expectation), and
- If the scale index is 2.90 and below, it means that the service is below the required level of quality (P<E).

The components with quality scale index below 3.0 indicate that the service quality level is below the required service quality, while the components with quality scale index 3.0 and above indicate that they meet the required or expected service quality levels. Table 5 below shows the calculation of the quality index scale of Senanga Town Council's service quality levels according to its total components

Table 6 below shows the interpretation of the quality index scale of Senanga Town Council's service delivery.

of 3.0 with a quality index scale of 2.72. Property management was second with a quality index scale of 2.54, followed by technology and ICT with a quality index scale of 2.09.

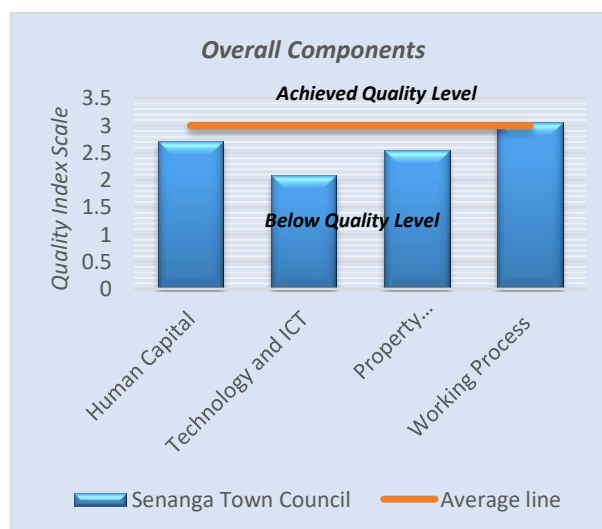


Figure 3. Index Qualities on Human Capital

Table 7 below shows that only one of the four hypotheses was supported. The only hypothesis that was supported was HA₄: Senanga Town Council meets the minimum service quality levels in terms of working processes. This hypothesis was supported because its p-value was less than 0.05 while the rest had their p-values greater than 0.05. The following were the values of the hypotheses: HA₁ (t=-5.91, p>0.05), HA₂ (t=-17.42, p>0.05), HA₃ (t=-8.40, p>0.05) and HA₄ (t=2.80, p>0.05). This tells us that:

- There is insufficient evidence to conclude that Senanga Town Council meets the minimum service quality levels in terms of human capital.

- There is insufficient evidence to conclude that Senanga Town Council meets the minimum service quality levels with respect to Technology and ICT.
- There is insufficient evidence to conclude that Senanga Town Council meets the minimum service quality levels with respect to Property Management.

There is sufficient evidence to conclude that Senanga Town Council meets the minimum service quality levels with respect to Working Process.

Table 7. Outcomes of Hypothesis Testing for Service Quality Levels

	Hypothesis	t-value	p-value	Comment
HA ₁	Senanga Town Council meets the minimum service quality levels with respect to human capital	-5.91	1.000	Not Supported
HA ₂	Senanga Town Council meets the minimum service quality levels with respect to technology and ICT	-17.42	1.000	Not Supported
HA ₃	Senanga Town Council meets the minimum service quality levels with respect to property management	-8.40	1.000	Not Supported
HA ₄	Senanga Town Council meets the minimum service quality levels with respect to working process	2.80	0.0028	Supported

5.5 Correlation and regression analysis

Correlation analysis was used to determine the direction and strength of the relationship between variables in this research study, while regression analysis was used to predict the value of the dependent variable, which in our case was customer satisfaction, based on the other independent variables.

Table 8 below shows the relationship between customer satisfaction and the service quality components. The correlation matrix has five (5) variables in this study where customer satisfaction is the dependent variable while human capital, technology and ICT, property management and working process are the independent variables.

Table 8. Correlation matrix

		Customer Satisfaction	Human Capital	Technology and ICT	Process Management	Working Process
Customer Satisfaction	Pearson Correlation	1	0.026	.185**	0.049	-0.01
	Sig. (2-tailed)		0.716	0.009	0.487	0.89
	N	200	200	200	200	200
Human Capital	Pearson Correlation	0.026	1	.327**	.534**	.497**
	Sig. (2-tailed)	0.716		0	0	0
	N	200	200	200	200	200
Technology and ICT	Pearson Correlation	.185**	.327**	1	.294**	.236**
	Sig. (2-tailed)	0.009	0		0	0.001
	N	200	200	200	200	200
Process Management	Pearson Correlation	0.049	.534**	.294**	1	.550**
	Sig. (2-tailed)	0.487	0	0		0
	N	200	200	200	200	200
Working Process	Pearson Correlation	-0.01	.497**	.236**	.550**	1
	Sig. (2-tailed)	0.89	0	0.001	0	
	N	200	200	200	200	200

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

Table 8 above shows that there is a significant correlation between all service quality components (independent variables). The relationships between the independent variables are also positive. For example,

human capital and technology and ICT (r=0.327, p<0.01), human capital and property management (r=0.534, p<0.01), human capital and working process (r=0.497, p<0.01), technology/ICT and property

management ($r=0.294$, $p<0.01$), technology/ICT and working process ($r=0.236$, $p<0.01$), property management and working process ($r=0.550$, $p<0.01$). However, the correlation between customer satisfaction (dependent variable) and service quality components (independent variables) was only significant between customer satisfaction and technology/ICT. Customer satisfaction and human capital had no significant relationship ($r=0.026$, $p>0.01$), customer satisfaction and property management had no significant relationship ($r=0.049$, $p>0.01$), customer satisfaction and working process had no significant relationship ($r=-0.01$, $p>0.01$), but customer satisfaction and technology and ICT had a significant positive relationship ($r=0.185$, $p<0.01$).

Tables 9, 10 and 11 show the results of the multiple regression performed with customer satisfaction as the dependent variable and the service quality components (human capital, technology and ICT, property management and working process) as the independent variables.

Table 9. Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.196 ^a	.038	.019	.59364
a. Predictors: (Constant), QSI_WP, QSI_TCnICT, QSI_HC, QSI_PM				
b. Dependent Variable: CS				

Table 9 above shows the four independent variables of the model (human capital, technology and ICT, property management and working process) that were examined. The independent variables explained about 4% of the total variation in customer satisfaction of the customers (service users) of Senanga Town Council as indicated

Table 11. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.901	.236		8.045	.000					
	QSI_Human Capital	-.032	.097	-.029	-.326	.745	.026	-.023	-.023	.631	1.584
	QSI_Technology and ICT	.171	.065	.197	2.621	.009	.185	.184	.184	.872	1.147
	QSI_Process Management	.040	.084	.043	.473	.637	.049	.034	.033	.598	1.672
	QSI_Working Process	-.046	.062	-.066	-.747	.456	-.010	-.053	-.052	.639	1.566
a. Dependent Variable: CS											

by R2. The degree of multiple correlation as indicated by R shows that the correlation was weak ($R=0.196$).

The ANOVA analysis shown in Table 10 below shows that the p-value is 0.104, which means that there is no significant relationship between the independent variables and customer satisfaction. Therefore, the model was not significant ($F=1.950$, $p>0.01$).

Table 10. ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.748	4	.687	1.950	.104 ^b
	Residual	68.720	195	.352		
	Total	71.469	199			
a. Dependent Variable: CS						
b. Predictors: (Constant), QSI_WP, QSI_TCnICT, QSI_HC, QSI_PM						

Table 11 below shows that only one variable was supported, namely technology and ICT. The other variables were not supported.

Table 12 below shows the hypotheses tested and the results were as follows; H_{A5} had ($t=-0.326$, $p>0.01$), H_{A6} had ($t=2.621$, $p<0.01$), H_{A7} had ($t=0.473$, $p>0.01$), and H_{A8} had ($t=-0.747$, $p<0.01$). Thus, hypothesis H_{A6} was supported. Therefore:

- There was no significant relationship between human capital and customer satisfaction.
- There was a significant positive relationship between technology and ICT and customer satisfaction.
- There was no significant relationship between property management and customer satisfaction.
- There was no significant relationship between working process and customer satisfaction.

Table 12. Outcomes of Hypothesis Testing of Service Quality Components and Customer Satisfaction

Hypotheses		t-value	p-value	Comment
HA ₅	Human Capital is related to Customer Satisfaction	-0.326	0.745	Not supported
HA ₆	Technology and ICT is related to Customer Satisfaction	2.621	0.009	Supported
HA ₇	Property Management is related to Customer Satisfaction	0.473	0.637	Not supported
HA ₈	Working Process is related to Customer Satisfaction	-0.747	0.456	Not supported

6. DISCUSSION

The main reason for this discussion is to attempt to answer the objective of this study. The research objectives were:

- To assess the level of service quality in Senanga Town Council.
- To relate service quality (components of service quality) to customer satisfaction.

The results of the study show that the council only met the minimum service quality levels in terms of working process i.e. enforcing bylaws and procedures, involving communities in development matters, planning according to the needs of the communities, etc. The rest of the service quality components were below the required service standards. The remaining service quality components were below the required service standards. The Council needs to ensure that there is improvement in the human capital component i.e. professionalism, coordination among staff, interaction with the public, customer care and availability to the public. With regard to the technology and ICT component, the Council needs to improve in the following areas: management of toxic waste and toxic solid waste, security of confidential customer documents, procurement of equipment, technology and IT systems etc. The other improvement is needed in property (infrastructure) management i.e. public premises, drainage, public toilets, car parks, water infrastructure, business areas, council premises etc. Therefore, based on the findings of this study, it is clear that Senanga Town Council only meets minimum service quality levels in terms of working processes. On average, the service quality levels provided by Senanga Town Council are below the required service standards. The results of this study also show that the majority of residents (service users) are not satisfied with the quality of services provided by the council.

In terms of service delivery, the findings of this study are very much in line with the findings of Yasin (2012) who conducted a study on local development planning and management in rural districts - the case of Chongwe. Yasin's findings included that in terms of service delivery, the council's performance was very poor and majority of Chongwe residents were not satisfied with the services provided by the council and some did not have access to the services. The study is also consistent with a study conducted by Denhere et al.

(2011) in Zimbabwe on the quality of service delivery in Zimbabwean urban councils; the case of Bindura concluded that the quality of service delivery by the Bindura City Council was far below the expectations of the residents. This was attributed to inadequate and disintegrated service delivery and management strategies. Human resource issues are among the reasons.

A similar study by Sheefeni and Mutingi, (2016) on the assessment of service quality delivery in selected local authorities in Namibia found that the quality of service delivery by Oshakati Town Council was satisfactory, although residents had concerns about the working process component. As for the Ongwediva Town Council, the quality of service delivery was above the minimum acceptable level of service quality. Both councils therefore had areas where they were doing well and areas where they needed to improve. Sheefeni and Mutingi's study was inconsistent with the findings of this study in that the working process component was not doing well according to the residents of Oshakati Town in Mutingi's findings, whereas in this study it is a component that was doing very well compared to other components.

The second question was whether there is a relationship between service quality and customer satisfaction. The result of this study shows that there is no relationship between service quality and customer satisfaction in Senanga Town Council. This is because the result shows that there was no significant relationship between service quality components and customer satisfaction. However, technology and ICT has a significant relationship with customer satisfaction.

This finding of this study is inconsistent with the research of Mokhlis et al. (2011), who focused on municipal service quality and citizen satisfaction using a SERVQUAL model. His finding was that service quality plays an important role in influencing customer satisfaction. The inconsistency can be attributed to the fact that both studies used different instruments. Therefore, there is a need for more research to be conducted in councils to determine the relationship between service quality and customer satisfaction using the FM-SERVQUAL model. The results of this study may not be generalisable to other councils that were not part of the sample.

7. CONCLUSION

From the findings, the research objectives were achieved by identifying the service quality levels and also determining the relationship that exists between service quality and customer satisfaction.

In analysing the service quality levels provided by Senanga Town Council to the residents of Senanga, it was found that out of four service quality components, only one component met the minimum required service standards. Senanga Council was unable to meet the minimum service standards required for human capital, technology and ICT, and property management. However, the Council met the minimum required service standards in relation to the working processes component.

Although the council met the minimum required service standards for the working process component, it can be concluded that on average the quality of service provided by Senanga Town Council is below the required service standards. This has further shown that the majority of residents (service users) are not satisfied with the quality of services provided by the council.

In analysing the relationship between service quality and customer satisfaction, it was observed that there is no relationship between service quality and customer and that all the components of service quality have no significant relationship with customer satisfaction. However, the results also showed that there was a significant relationship between technology and ICT and customer satisfaction. This meant that technology and ICT have an impact on customer satisfaction in Senanga District. Therefore, this study has established that technology and ICT have an impact on customer satisfaction.

In a nutshell, according to this research finding, the re-establishment of the Local Government Service Commission and the establishment of the Local Government Equalisation Fund have not shown any improvement in the quality of services provided by rural district councils to the people of Zambia.

7.1 Recommendations

The recommendation to the government was to ensure that the council was supported with technology and ICT, property management and human capital. Since the New Dawn Government has increased the Constituency Development Fund from K1.6 million to K25.7 million per constituency, some of these funds should be used to improve technology and ICT, property management and human capital. The government is recommended to ensure that officials in rural areas are motivated with a good rural hardship allowance or other incentives. This was attributed to the fact that, according to the results, the officers are not polite to the customers and do things

that frustrate them, i.e. no coordination with the public, inefficient and ineffective in dealing with customer complaints, etc. Most of the people who are recruited and sent to rural areas by the Local Government Service Commission end up turning down the offer, and also the officers working in rural areas pray and wish to be transferred or relocated at any cost.

The government is also recommended to continue to support councils with equalisation funds as this would help councils to do better in the areas of technology and ICT and property management, i.e. implementing a preventive maintenance plan for roads, water resource infrastructure, drainage systems, public toilets and all council-owned properties, not forgetting the adoption of modern technology and continuous improvement. The importance of continuous improvement through TQM has been emphasised by many studies (see Yangailo, 2024a, 2024b; Yangailo, 2023), therefore local authorities should also adopt and implement TQM practices.

The Government should also speed up the devolution process to help address the human capital challenge in the Council with the arrival of new civil servants from devolved government departments.

The recommendations to the Local Government Service Commission focused on helping the council to improve in the service component of human capital. This study found that the council was underperforming in the human capital component and therefore recommends that the Local Government Service Commission should conduct an annual staff audit to determine the profile of the council's officers. This would help to identify officers who are not qualified for their jobs and replace them with qualified people. This was attributed to the fact that, according to the study findings, the officers were not professional in the execution of their duties, hence the human capital component performed poorly.

Recommendations to Senanga Town Council focused on bridging the gap between residents' expectations and perceptions by improving the other three service quality components where the council performed poorly based on this research. To improve in the areas of human capital, technology and ICT, and property management, the council is recommended to:

- Concentrate on procuring equipment and trucks that would help the council to provide services to the people efficiently and effectively (i.e. grader, refuse trucks etc.) The element of technology and ICT component is among others, collection of solid and toxic waste. The procurement of this equipment would make it easier to help the council work well.
- Establish substructures (centres) in all wards using part of the Local Government Equalisation Fund and Constituency Development Funds (CDFs) to ensure that

every resident of Senanga has access to council services. The inability of residents to access offices under the property management component contributed to the low performance of the council. Therefore, there is a need for these centres.

- Adopting modern technology and continuous improvement, i.e. setting up an attractive website where residents can interact with council officials and carry out other transactions, etc. This would further help to improve the technology and ICT component.
- Implementing a preventive maintenance plan for roads, water resource infrastructure, drainage systems, public toilets and all properties owned by the Council. This would also help the Council to improve in property management as it can be seen that the component has been performing poorly.
- Train officers by sponsoring them to upgrade their studies in this changing environment. This would improve the human capital component as professionalism falls under this component.
- Conduct staff appraisal every quarter of the year. This would make council officers productive at work and help improve the human capital component.

7.2 Contribution of the Research

The findings of this research have made several contributions to the literature on service quality delivery in rural districts. It is one of the first researches ever

conducted in Senanga Town Council and has contributed significantly to the limited existing literature in Zambia.

7.3 Limitation to the Study

The main limitation of this study was the lack of previous research on this research topic in Zambia. There was very little literature available in relation to this research study. Most of the available literature used was from other countries.

7.4 Future Research

There are several studies conducted outside Zambia on this very research topic, although some of them used the SERVQUAL instrument, while others used the instrument called FM-SERVQUAL, which was used in this research study. However, there are no similar studies in Zambia. There is no research in Zambia specifically on local authorities (councils) that have used the FM-SERVQUAL in assessing service quality. Therefore, the findings of this study may not be generalisable to other local authorities that were not part of the sample. There is need for research to be carried out in other local authorities not only in Zambia but even in other countries using the exact instrument used in this study and the questionnaires should also be extended to officers/employees to compare the responses of both customers and staff.

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