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## Impact of knowledgeable workers on water service delivery in Zanzibar: A case of Zanzibar water authority (ZAWA)

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### Abstract

This study aimed to examine the impact of knowledgeable workers on water service delivery in Zanzibar with the specific case of Zanzibar Water Authority (ZAWA). A case study design involved both qualitative and quantitative approaches. A total of 80 ZAWA employees were involved as sample size in this study. Data was collected by using in depth interview and semi closed questionnaire. Content analysis was used to analyse qualitative data, whereas quantitative data were analyzed by using Statistical Package for Social science (SPSS) to get both descriptive and inferential data. Moreover, qualitative and quantitative data were presented by table and narrations respectively. The finding of this study revealed that knowledgeable workers have the great role to play to ensure quality and affordable water service delivery to the citizen. The study also revealed that ZAWA effort goes to proper managing in collaboration with organizational learning for better creation, sharing and application of different skill to ensure sustainability and retention of knowledgeable workers. The study recommended the need to identify quality staffs with required skills and professional based on organizational objectives for the better delivering of water service to the people. ZAWA should motivate the knowledgeable workers so as to retain and sustain them for the current and future needs of ZAWA.

**Keywords:** knowledge, knowledgeable workers, knowledge management, service delivery

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### Introduction

Globally, the provision of quality services is becoming a big problem in most public and private sector. In Zanzibar this problem is much experienced in some part of Urban area, whereby most of the people in Zanzibar missing the quality water services. As it is known that water service delivery required specific knowledge in plumbing, pipe fitting as well as geologist in ground water management; the success of water water authorities are highly depend upon the availability of knowledgeable workers within organisations. Organizations around the world believe that, the knowledgeable workers play an important role in driving success in any organization. Generally, knowledgeable workers characterised with a long time spent looking for basic education, higher ability to solve complex problems, ability to develop a higher system to bring more quality of water services to meet a customer's need, strong inspection which provides important pressures for enhancing public organization performance and ability to improve management, leading to more effective implementation of the chosen interventions, better water service delivery and better outcomes to the citizens (Njunwa, 2011) <sup>[5]</sup>.

History shows that, since its establishment in 2006 under The Water Act, No.4 of 2006, which officially replaced the Department of Water Development. ZAWA was predicted to become an autonomous entity that will ensure providing a potable, adequate, affordable, efficiency and facilitate the sustainable development of water supply service in a sustainable, environmentally friendly manner in both urban and rural of Unguja and Pemba. Unfortunately, there is worldwide dissatisfaction with the service offered by ZAWA. It was reported by Kangogo (2015) <sup>[10]</sup>, that poor quality customer service in the ZAWA is due to lack of knowledgeable workers as main resource who have specific skills and understanding work processes that in turn fosters cooperation, collaboration and team working in solving the customer's problem in the country. This provide a motivation for a researcher to investigate why knowledgeable workers have no impact on water service delivery in Zanzibar?

### Statement of the Problem

The provision of quality water of services is becoming a big problem in some part of Zanzibar, whereby most of the people in Zanzibar missing the water services. This due to the shortage of expert with the required knowledge and experience in delivery of water service to the citizen to the extent that it expected (RGoZ, 2022) <sup>[6]</sup>. Zanzibar has a total population of 1.8 million according to the Population and Housing Census (2022). But more than 59% of the entire population suffers with the shortage of water services delivery even though ZAWA have workers with kind of skills such as engineering, geologist, environment science, plumbing and pipe fitting as well ground water expertise who can ensure the water services delivery.

According to ZAWA Board report (2022) in Unguja Office shows different education level of the staffs from certificate level to Master level that are currently available in ZAWA. For example, in 2018/19 only 20% of total 415 staffs reached at least satisfactory level of education; in 2019/20 about 38% of the total 408 staffs also considered to be at satisfactory level; in 2020/21 about 48% of the total 398 staff of ZAWA considered with the at least sufficient knowledge and skills required to ensure the effective implementation of daily activities in delivering of quality service to the citizen. The knowledgeable workers in ZAWA have been improving from one year to another. However, the proportion of increasing number against estimated is very low, that why the water service delivered is not satisfy the need of the citizen to the extent that it could be. Therefore, this study focuses on examining the impact of knowledgeable workers on service delivery in Zanzibar.

### **Emperical Literature Revi**

This section reviews some of the recent and related empirical studies which was done by other scholars and their core findings were:

Igielski (2017) <sup>[4]</sup> conducted a study on the role of knowledge workers in creating innovative solutions in modern company. The research employed descriptive design as research methodology. The author selected the individual interview as a research method. The research technique was a questionnaire survey in which the research tool was a comprehensive questionnaire survey. The study found that, knowledgeable workers help those companies who are aware that knowledge is the most important asset but have a problem with its optimal use. The study recommended that, the most important step is to recognize this group of employees, and we must treat them as a chance to pursue business goals based on the available knowledge successfully. We also have to let them do what they like and can do: create products and services that are distinct from the competition; look for market niches and niche in customer needs; create and implement new customer contact channels; encourage customers to take advantage of the available offer.

Hussain, Konar and Ali (2016) <sup>[3]</sup> conducted a study on the effect culture and knowledge sharing on the performance of hotel service. This study was conducted in Malaysia hotel industry. The study used purposive sampling technique in the quest of determining the effect of the two variables. Questionnaire was used to acquire data that is relevant to the study. The study also targeted 327 staff of luxury hotels within Klang Valley, Malaysia. The analysis of this data was performed using partial least squares. The findings indicated that culture and knowledge sharing behavior have a significant effect on the service innovation performance. The study therefore recommended that firms need to implement strong cultural team and knowledge sharing behavior to kick start performance growth.

Chebets (2020) <sup>[2]</sup> studied on the effect of knowledge management practices and service delivery at Oxfam international, Kenya. The study used descriptive statistics method carrying out this research. The target population was therefore 65 staff of Oxfam international headquarters. The collected data was analyzed using descriptive statistics such as mean, standard deviation, frequency distribution as well as percentages. The study concluded that the organization embraced knowledge sharing through sharing lessons, publicizing the lessons, cooperation and exchange of experience, valuing lessons and awarding and recognizing lessons learned. The study recommends that the management of the INGO should invest more in modern technology, knowledge application, storage and dissemination. The organization needs to improve the capacity of its human resource to enhance their ability to learn, share, apply, store and disseminate knowledge.

Ada and Akan (2019) <sup>[1]</sup> conducted a study on knowledge integration and service delivery of health professionals in public hospitals in South-South Nigeria. The study employed a correlation design. A sample of 596 respondents were selected from twelve categorized public hospitals in South-South using Taro Yamani's formula. 34 questions were formulated in the questionnaire in line with the stated objective of the study. The results showed that there is positive significant relationship between knowledge integration and service delivery of health professionals in public hospitals in South- South Nigeria. The study concluded that the integration of knowledge management in service delivery is a vital aspect of learning in healthcare organization, as new discoveries and knowledge become available to professionals in their respective fields which have to acquire, transmit, retain and use the knowledge. The study therefore, recommends that organizations of various sizes should adequately integrate knowledge management enablers' factors in their organizational culture and leadership to enhance organizational performance and provision of service quality.

### **Methodology**

The study adopted a Descriptive Research Design. This design is selected to describe a particular phenomenon at a particular time. This study employed the quantitative approach so as to meet the demands of study and for acquiring accurate data. The research conducted at the Zanzibar Water Authority (ZAWA) at Mayugwani in Zanzibar. The study includes 398 people who are responsible for collecting revenue in their respective area. the sample size of the respondents was 80 respondents. Simple random sampling was used to get needed respondents by using Yamane formula (1967) to get required respondents to complete a questionnaire. The questionnaire and interview was used to collect data. Whereby descriptive statistical analysis and SPSS version 23 used to analysis data. In this study several experts were used to evaluate tool used for data collection whereby pre-test method was adopted to check for data reliability.

## Study Findings

### 1. Demographic Characteristic of the Respondents

This section gives a basic information and profile of respondents. These information help a researcher to study a behavior of respondents towards revenue collection. The section provides the characteristics of the respondents related to their, age, gender, marital status, educational level and position as summarized below:

**Table 1:** Demographic of the respondents

Variables	Category	Frequency	Percentage
Age	18-28	3	4.1
	29-39	8	11
	40-50	42	57.5
	50 and above	20	27.4
Gender	Male	42	57.5
	Female	31	42.5
Education level	Secondary	4	5.4
	Certificate	16	21.9
	Diploma	26	35.6
	Degree	21	28.7
	Master	6	8.2
Working experience	1-3	7	9.6
	4-6	15	20.5
	7-10	18	24.7
	11 and above	13	17.8

Source: Field Data, 2022

#### 1.1 Age of the respondents

The results from the table 1 revealed that 4.1% of the respondents ranged from 18-28 years, 11% of them aged between 29-39 years, 42% respondents aged between 40-50 years and 27.4% of the total respondents aged between 51 and above as shown in figure 4.1. These findings indicated that the majority of the respondents who participated in this study are energetic middle aged with an average of 45 years.

#### 1.2 Gender of the respondents

The table 1 showed that, 57.5% of respondents were males and 42.5% were females. This shows that the distribution of the respondents by gender; where the male respondents appeared to be higher than female respondents. This revealed that in most case, ZAWA had large number of male in technical activities such engineering, geology etc to compare with female. This is because the female respondents are not much aware and not interested in doing such kind of job due to the nature of female and their attribute in their life. That is why male respondents take over the opportunity to specialize most in technical activities.

#### 1.3 Education level

Results show that, the level of education in the study area is satisfactory where the highest number of the respondents about 35.6% had reached at diploma level while the lowest number of the respondents about 5.4% of the total respondents had reached at secondary education. In this finding most technical workers in ZAWA had a diploma level of education, which is not at satisfactory level in which ZAWA can expect a quality service delivery under the workers with the diploma level which is why the researcher intended to find out the consequences of ZAWA in term of promoting their knowledgeable workers so as to achieve the organizational goals of water service delivery.

#### 1.4 Working experience

Finally, The findings showed that 7 (9.6%) had experience below one year, 15 (20.5%) had 1-3 years, 20 (27.4%), had 4-6 years, 18 (24.7) had 7-10 years while 13 (17.8%) had more than 10 years. This shows that more than 85% of respondents had more than 1 year of experience in their career which gave them proper understand the impact of knowledgeable workers on provision of water service in Zanzibar. Table above gives a picture of experience level of respondent which shows that most of respondents have more than one-year experience which suggest that, they are in a good position to understand the objective of this study.

## 2. To Examine the Impact of Knowledgeable Worker

### 2.1 Knowledgeable workers encourage water service delivery

Based on the strategic ways to ensure the numbers of knowledgeable workers are increasing and become useful in delivering of water service to the citizen, the researcher wanted to know whether the water service delivery is influenced by knowledgeable workers or not. The respondents were asked to show their opinion base on the question posed by the researcher. The results are shown in Table 2

**Table 2:** Knowledgeable workers encourage water service delivery

Result		Frequency	Percent
Valid	Yes	52	71.2
	No	21	28.8
	Total	73	100.0

Source: field data, 2022

Table 4.5 indicated that 52 respondents which is equal to 71.2% said yes to agree with the statement that knowledgeable workers are the ones who take action to ensure the quality and required water service is delivery to the citizen at the right time to meet the demand of the people in a particular area, 21 respondents which is equal to 28.8% said no to the statement. The findings of this study portrayed that to a large extent the respondents strongly agreed to the way that knowledgeable workers become an asset within the organization. The entire management expects a good result from them due to their capability to perform their daily activities with logical manner.

The implication of the table 4.5 shows that work atmosphere largely determines knowledgeable worker's performance in the organization and this can bring a successful provision water service delivery. It noted that the ability of knowledgeable workers to use their skills and experiences encourage the achieving the goal of ZAWA to deliver quality and clean water service to the maximum level that required by ZAWA. This can be well sustained through the commitment of the ZAWA management to ensure the knowledgeable workers are well managed to use the talent for the better achievement of the water service delivery. This can be in the same line with the study conducted by Abonam (2011) who suggested that management should take precautionary steps to incorporate all the skills and experience that influence employee performance within the organization. Thus, the application of knowledge management tools such specialized knowledge, and technical management will ensure the supports from knowledgeable workers encourage to quality service delivery to the extent that it could be.

## 2.2 Capacity of knowledgeable worker

In this part the researcher wanted to know the capacity that knowledgeable workers have in the organization so as to determine the level of performance of every individual.

**Table 3:** Capacity of knowledgeable workers

Result		Frequency	Percent
Valid	Specialized Knowledge of a subject	10	13.7
	Ability to find and access new information	24	32.9
	Ability to utilize new information	26	35.6
	Good communication skills	13	17.8
	Total	73	100.0

Source: field data, 2022

The findings from the table 3 shows that 10 respondents which is equal to 13.7% said specialized knowledge of a subject as one among the capacity of knowledgeable workers, 24 respondents which is equal to 32.9% indicated that ability to find and access new information is also a capacity of knowledgeable workers, 26 of the total respondents which is equal to 35.6% said ability to utilize new information in their daily performance and final 13 of the respondents which is equal to 17.8% of the total respondents said good communication skills considered as a capacity of knowledgeable workers. Aggestam (2015) <sup>[8]</sup> who conducted a study on learning organization or knowledge management and found that knowledgeable workers are characterized by strong inspection which provides important pressures for enhancing public organization performance. It also improves management, leading to more effective implementation of the chosen interventions, better water service delivery and better outcomes to the citizens.

## 2.3 Effects of knowledgeable workers

In this part the researcher went further to find the effects of knowledgeable workers in organization in which the respondents were asked to provide their vies based on the role play by the knowledgeable workers during the implementation of their daily activities within the organization. The results are shown in the table 4:

**Table 4:** The effect of knowledgeable workers

	<b>Result</b>	<b>Frequency</b>	<b>Percent</b>
Valid	Courage in innovative solution	6	8.2
	Expanding and developing new knowledge	21	28.8
	combine technical skills with managerial skills	27	37.0
	Identifying importation information	19	26.0
	Total	73	100.0

Source: field data, 2022

The findings from the above Table 4 illustrated the effects of knowledgeable workers in their respective area of performance within the organization. Where the high number of the respondents which was about 37% revealed that combine technical and managerial skills as one among the major effects of knowledgeable workers, this because the knowledgeable workers are ones who have experience to determine the need of the entire organization and integrated different skills and technical issues based on production and delivering of water services to the citizen. While 8.2% of the respondents said courage in innovative solution also is the effect of knowledgeable workers. This implies that knowledgeable workers always have ability to make thing right in organization, they take effort to make sure the organization successes in term of production and service delivery.

#### 2.4 Ways to Increase Knowledgeable Workers and Enhance Water Service Delivery

In this section the researcher wanted to know different strategies used by ZAWA to increase, develop and retain knowledgeable workers. The respondents were asked to provide their views based on different ways applied by ZAWA to ensure the number of knowledgeable workers is increasing so as deliver a quality water service as accordingly. The results are shown in the table 5:

**Table 5:** Ways to increase knowledgeable workers and enhance water service delivery in ZAWA

	<b>Result</b>	<b>Frequency</b>	<b>Percent</b>
Valid	Training the employees according to their professions	5	6.8
	Motivation of employees	21	28.8
	Management supports	31	42.5
	Process of knowledge creation, shared and application	16	21.9
	Total	73	100.0

Source: field data, 2022

Table 5 revealed that 5 of the respondents which is equal to 6.8% said training employees according to their professions, this is one among the strategically ways to ensure the knowledgeable workers are considered in organization; 21 respondents which is equal to 28.8% indicated that motivation of employee also a mechanism to improve knowledgeable workers in organization; 31 respondents which is equal to 42.5% showed that management supports to be included as s strategically way to ensure the present and application of knowledgeable workers within the organization as well as 16 respondents which is equal to 21.9% said determine the process of knowledge creation, shared and application within the organization.

This implies that there are different mechanisms to be used so as to ensure the number of knowledgeable workers are increasing and develop for the beneficiary of the organization. This study finding supported by Figueiredo *et al.* (2016) <sup>[9]</sup> conducted a study on human resource management impact on knowledge management:. He found that the idea in organizational capabilities focused on the development and implementation of knowledge management processes and infrastructure needed to aid daily work practices. Knowledge capabilities revolved within the following resources which include: technology infrastructure, organizational structure and organizational culture which are linked to a firm's knowledge infrastructure capability; and knowledge acquisition, knowledge conversion, knowledge application and knowledge protection which are linked to the firm's knowledge process capability.

#### Conclusion

The research has described and assessed the impact of knowledgeable workers on water services delivery in Zanzibar. This study was intended to accomplish the following conclusion.

Knowledgeable workers in today's workforce considered as individuals who are most valued for their ability to use their knowledge, skills and experience to perform a specific task within the organization. Knowledgeable workers play a great role to ensure the quality of water service delivery to the maximum level. The process of increase number of knowledgeable workers based in collaboration with organizational learning process where the knowledge management considered as vital tool for discover a new and knowledgeable worker and become available professionals in their respective fields and retain then to have a long impact in ZAWA. This ensures that water service professionals adopt the prevailing new knowledge to enhance their performance toward quality water service delivery and long term integration and survival in the water sector. A part from that, ZAWA facing many challenges that hindering the provision of water service delivery to the maximum level this

caused by the many reasons including irrelevant of qualification, inadequate financial resource, poor management and other which is in one way or another lead to poor service delivery in ZAWA. Therefore, ZAWA should take effort to implement different strategies so as to overcome these challenges

### **Recommendation of the Study**

Knowledgeable workers require a specific approach and they should be managed by specific techniques. The nature of knowledgeable workers work differs from that of manual workers. Knowledgeable workers are expected to deliver high quality work and creativity in creating new knowledge, products and solution. The tasks they perform are usually complicated ones which require constant development qualifications improvement and continuous new knowledge acquisition in a rapidly changing environment. The key aspects that a knowledgeable workers manager must pay attention to are: The management of ZAWA should well identify the tasks that knowledgeable workers bring quality of water service delivery. Based on the role that knowledgeable worker played, it is necessary to eliminate or significantly reduce the tasks that waste the time of knowledgeable workers. It is imperative to hand over such tasks to workers with lower competencies who are less expensive. However, there cannot be too many tasks entrusted to workers since it would lead to significant losses in workers internal resources, productivity and job satisfaction.

### **References**

1. Ada JA, Akan PA. Knowledge integration and service delivery of health professionals in public hospitals in South-South Nigeria. *European Journal of Training and Development Studies*,2019;6(2):18-33.
2. Chebet D. Knowledge management practices and service delivery at Oxfam international, Kenya (Dissertation) Kenyatta University in Kenya, 2020.
3. Hussain K, Konar R, Ali F. Measuring service innovation performance through team culture and knowledge sharing behaviour in hotel services: a PLS approach. *Procedia-Social and Behavioral Sciences*,2016;224:35-43.
4. Igielski M. The role of knowledge workers in creating innovative solutions in modern company. *Business and Non-Profit Organizations as the Objects Of Research*,2017;16(2)47-58.
5. Njunwa MH. Achieving the Millennium Development Goals through innovative public service delivery: A critical assessment of implementing client service charters in Tanzania. *JOAAG*,2011;6(1):58-67.
6. RGoZ. Zanzibar Water Investment Program 2022-2027. Ministry of Water, Energy and Minerals Zanzibar, 2022.
7. ZAWA. ZAWA Board Report April-June, 2020 (unpublished), 2020.
8. Aggestam L. Learning Organization or Knowledge Management–Which Came First, The Chicken or the Egg? *Information technology and control*,2015;35(3).
9. Figueiredo E, Pais L, Monteiro S, Mónico L. Human resource management impact on knowledge management: Evidence from the Portuguese banking sector. *Journal of Service Theory and Practice*,2016;26(4), 497-528.
10. Kangogo FC. Influence of knowledge management practices on enhancing service delivery in the banking sector in Kenya: a case of commercial banks in Kenya. *Strategic Journal of Business and Change Management*,2015;2(2).