Company Structure and Level of Service of Syarikat Air Darul Aman (SADA) to Consumers in Kedah

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Abstracts: The purpose of the study was to assess the function of the water supply treatment and distribution company in the state of Kedah, Syarikat Air Darul Aman (SADA) in fulfilling its function of supplying clean and treated water to 2.2 million people in Kedah. Despite the company structure, the impact of legislative regulation under the act of parliament and state enactment resulted in SADA being subject to full political control even though it is a business entity in accordance with the Companies Act 1965. For this purpose, 200 respondents were taken at random and distributed questionnaires in three SADA operating centres covering three regions, namely Eastern, Southern and Northern Kedah Regions 1. Four themes were observed using descriptive statistical analysis which is about the user's understanding of SADA functions. It also involves consumer expectations on SADA, the level of satisfaction with over-the-counter services and operations. The findings found that on average the percentage of user satisfaction in relation to the service and orientation provided by SADA was still poor. The level of professionalism, effective service and corporate governance is still underappreciated as the dominant culture in SADA due to the overshadowed company structure of a government agency.

Keywords: Company Structure, Service Level, Corporate Governance, and Consumer Satisfaction.

1. INTRODUCTION

The introduction of Act 654 which exposes the Malaysian Water Supply Industry Act 2006 and the State Enactment in 2008 allows the main functions of the corporation established in the state of Kedah known as Syarikat Air Darul Aman (SADA) to be dedicated to the role of treating raw water to be channelled to the people of Kedah. In terms of political and legal implications, all joint jurisdictions which have been owned and incurred by the state Water Supply Department including assets, capital controls, operations, management, and technical personnel are transferred into full ownership of SADA. To date, SADA has been operating as a utility model entity for more than 13 years by regulating 36 water treatment plants besides providing treated clean water needs to 2.2 million people in the state of Kedah (SADA Corporate Department, 2020). Although SADA's role has been clearly outlined, the performance of its services to date remains a dispute among consumers over the past decade. This dispute is driven by many reasons. First, from the technical point of view and preparedness of the infrastructure of the state of Kedah, it is known to have four dams that play a role in storing raw water supply from natural sources namely Muda Dam, Pedu, Ahning and Beris. In terms of terrain, the state of Kedah has many long river streams. Four water-holding dams, namely Muda Dam, Pedu, Ahning and Beris were also built for the purpose of reservoirs for agricultural irrigation and raw water supply sources. Apart from that, the state of Kedah also receives a high rainfall distribution every year due to the influence of climate factors.

These two circumstances show that the State of Kedah naturally has a considerable source of raw water supply. However, there is astonishment among consumers that the consistency of supply is often affected. Apart from that, the quality of the water supplied is also low in the sense of often dirty, dregs and the water pressure become too slow for the end of supply areas such as in Kuala Kedah, Tanjung Dawai, Bukit Raya, Pokok Sena, Jerlun and parts of the city centre in Alor Setar and Jitra. Repeated issues and problems seem to have no improvement despite various preparations including infra improvement work done around the clock.

From one perspective, the cause of grievances is also driven by the lack of understanding of consumers about the diversity of processes that need to be passed before the supply of clean water can be supplied through the pipeline. The lack of consumer knowledge is largely the result of the weakness of the narrative on the part of SADA itself to clarify the issue through continuous announcements and campaigns. In addition, there is no denying that

internal or external influence and political interference also affects the quality and professionalism of the services provided by SADA to its customers.

2. LITERATURE REVIEW

Demand for clean water supply was largely driven by higher population growth and per capita water consumption in global projected growth. Benson et al. (2017) for example narrowed the focus of the study by examining the limitations of water resources, and the difficulties of supply management in island areas, remote areas and archipelago countries. Privatisation methods are also recommended to improve the efficiency of state water supply services (Brown & Matlock, 2011). In this industry, an effective governance system is also needed because it cannot result in high management costs of the company (Al-Mamun & Zainuddin, 2013; Kim, 2012).

Efficiency in domestic water consumption by the residence can also contribute to a sustainable supply. Usually for one residence 30% of the water is used for toilet flash, 16% water for washing machines, 23% is used for bathing, 17% is used for food and drink cooking and 14% is used for crops and cleaning (Adeoson, 2004; Chan et al., 2017). The practice of saving water and sensitivity to preserving water resources is best another measure to ensure that the supply is always in a sustainable state (Chang et al., 2013; Ching, 2012). Similarly, the efficiency in reducing the rate of non-successful water (NRW) and the existing tariff rate which is below the level of being able to cover its operating costs (Abdullah, 2010). Nazemi and Madani (2012) also highlighted the need for high working capital in the water supply industry as a measure to ensure that supplies and services are not affected. In the meantime, through the measurement and level of determination using accurate mathematical formulas, the actual needs and offerings are provided by the company that handles the treatment and distribution of water supply to consumers (Sebesvari at al., 2017).

3. METHODOLOGY

Consumer perceptions are reviewed regarding the level and quality of services provided by SADA. As a result, a survey was conducted on 200 SADA customers through random sampling through the circulation of questionnaires conducted in three regional centres covering the Eastern, Southern and Northern Kedah Regions 1. These three regions generally represent almost six districts which is half of the total districts in the state of Kedah. To complement the meaning of obtaining the findings and results of the perception analysis on this matter, the survey was conducted twice in March (1 to 7 March 2019) and in November (7 to 14 November 2019).

The repetition of the survey is done using the same questions and questionnaires to enable the data to be taken triangulation to verify and prove the perceptions expressed by SADA customers. For each survey, 100 respondents were taken from all three operating centres involving users who came to deal with SADA's office. Surveys are conducted using the circulation of questionnaires with closed and open questions submitted. All questions are simple questions and require answers that can be solved within four to five minutes for each respondent. All data findings are made descriptive statistical analysis to obtain percentages.

4. FINDINGS AND DISCUSSION

In a first-time survey, 76% of respondents were domestic account holders while the remaining 24% were commercial account holders. A total of 78 % while the remaining 22% were observed from the second survey. This is in line with the landscape of total account holders from a total of 610, 000 accounts operated by Syarikat Air Darul Aman (SADA) throughout the state. Based on the throughout, it is found that almost 80 % of users own a domestic or residential account. In relation to the understanding of consumers and respondents to the SADA function, the results of the survey found that 87% of respondents assumed that SADA's fundamental role is fully responsible in ensuring that the water supply is always consistent, collecting bills as well as performing plumbing repair work.

Only 13% of the other users have the knowledge that SADA also works to carry out raw water treatment work that is difficult and diverse to go through at the Water Treatment Plant (LRA). In addition, SADA is also involved in plant supervision, conversion, maintenance and pipe repair. Included in SADA's other additional scope of work is the plan to find long-term water resources through renewable multi-purpose resources. All frameworks and contents

related to the items stated can be observed from the findings observed as shown in Table 1 below.

Table 1. Respondents' understanding of the actual functions and responsibilities of Syarikat Air Darul Aman (SADA).

Functions of SADA as an authority to supply water consistently.	87 % (first-time survey)	85 % (Second Time Survey)
SADA's functions range from plant treatment to distribution, pipe repair and maintenance.	13 % (first-time survey)	15 % (Second Time Survey)
Total	100 %	100 %

The repetition of the second survey also confirms the understanding and perception of users who still revolve around SADA's fundamental role in the question. A total of 85% of the respondents assumed that the role of SADA is limited to specific matters while the other 15% of respondents understand the heavy responsibilities that SADA bears in the matter of treatment, distribution, management of water supply tied to various environmental environments. Implications of a high level of understanding regarding SADA's role in providing consumers with clean water needs through home taps resulted in two side effects (Field survey, March, and November 2019).

First, consumers always expect that the water supply is always consistent and channelled to their homes. Unfortunately, the group of respondents do not want to consider the various factors or problems that can exist in affecting the existing supply such as weather factors, contamination of raw water sources, turbidity of water source from the river, environmental disaster, technical damage at the treatment plant and so on. The respondent's perception that SADA needs to ensure that the need and supply of clean water is maintained through the supply of pipes at home is always available due to the understanding that consumers pay bills every month. Apart from that in the contract there is already a binding agreement that SADA is obliged to channel the continuous supply of pipes. Although in the Water Supply Industry Act there is a outline if SADA or any operating company fails to pay off the supply through the existing system options can be taken e.g. delivery of supplies through water tanker trucks and other methods. Therefore, due to such a general notion, it is the duty on behalf of SADA to ensure that no major disruptions occur when it comes to the distribution of treated clean water for consumers. Especially on peak days such as festive seasons, school holidays when there are many feasts and celebrations are held.

Touching on aspects related to consumer expectations about SADA servives, there are three categories of users who have different interpretations. A total of 71% of consumers want complaints to be dealt with quickly once a report or complaint is submitted. In the meantime, 89% of the other consumers want the water pressure to be at a good level and there is no continuous supply disruption. A total of 85% of the other respondents who are also SADA users want the information delivery system in relation to leaks or supply issues can be channelled more quickly and reach the user's knowledge as well as the expected time to be taken to restore the supply. The purpose is not to inconvenience the users and the preparation of early necessities such as making storage and water reservoirs can be done for residential use.

The survey, which was conducted for the second time on the respondents, recorded three items of the same percentage with a percentage range that was not much different from the first survey. The results of the survey found that a total of 72%, 91% and 86% of respondents were recorded for user expectations of the services in question (Field survey, March and November 2019). The summary of these findings can be reviewed as per Table 2 in the next discussion section below.

Table 2. Consumer expectations over SADA.

The percentage of consumers who want complaints to be acted upon immediately.	71 % (first-time survey)	72 % (Second Time Survey)
Percentage of consumers who want consistent supply	89 % (first-time survey)	91 % (Second Time Survey)
The percentage of consumers who want the speed of delivering information in relation to supply disruptions.	85 % (first-time survey)	86 % (second time survey)

In terms of the level of user satisfaction related to the services provided by SADA, the respondents were found to have only provided 66% and the remaining 34% of respondents were not satisfied with the services provided so far. The second survey found that only 61% of respondents were satisfied with SADA's services while 39% of users were less satisfied (Field survey, March and November 2019). Three traceable things that users emphasize when it comes to services provided by SADA. From the review summary there are still many aspects of repair and change that need to be hastened by SADA. Among them are the aspect of reliable and consistent water supply services through the supply of piping system instead of through support services such as water supply delivered by tanker trucks.

In all 36 items, only 66% of respondents agreed and believed that SADA could be trusted when it came to providing water consistently while 34% were less confident. The second survey summed up 61% confident and 39% less confident in SADA in providing water continuously because of past experiences faced by consumers who are often affected by their supply. In terms of the quality of water supplied by SADA, only 43% of consumers are satisfied while more than 57% are not satisfied as it is said that the treated water supplied by SADA, is murky and sometimes not suitable for daily use. The inclusion of the level of satisfaction with the services provided by SADA can be reviewed based on table 3 as follow:

Table 3. Levels of user satisfaction with SADA services

Satisfied	Not satisfied	Satisfaction about water quality	Not satisfied with water quality
66 % (first-time survey)	34 % (first-time survey)	43 %	53 %
61 % (Second Time Survey)	39 % (second time survey)		

Based on table 3 as shown, SADA's own internal governance in fulfilling its basic functions, namely consumer service and the quality of water supplied to the residence is still at a poor level. All these responsibilities are technical matters within the scope of SADA and are not affected by any political elements both internally and externally. The findings of the survey as shown in table 3 found that there are still many weaknesses in the service provided by SADA that need to be improved and improved the quality of its delivery system.

Similarly, when it comes to over-the-counter customer service, staff approach in handling complaints and follow-up actions by SADA in implementing repair services or related complaints received, it shows weaknesses in terms of actions in resolving consumer complaints and grievances (Field survey, March, and November 2019). The results of the survey found that only 44% of respondents were satisfied with customer service and follow-up services provided by SADA for each complaint or grievance submitted. Meanwhile, a total of 56% of respondents felt dissatisfied with the customer service provided. The second survey from the customer service point of view found that 53% of respondents are still dissatisfied with SADA's counter services and only 47% expressed satisfaction (Field survey, March, and November 2019). The description of the findings is shown in Table 4.

Table 4. Level of customer satisfaction with over-the-counter services and complaints services.

	Satisfied	Less Satisfied
First Survey:	44 %	56 %
Second Survey	47 %	53 %

5. CONCLUSION

Based on the overall analysis according to the percentage obtained from the two surveys conducted on SADA users, three formulations were obtained and can be submitted for the purpose of discussion. First, the understanding of consumers on water supply in the state of Kedah in terms of knowledge related to the complexity of the process of treating, distributing, and supervising the supply of treated clean water is still at a low level. In other words, the vast majority of consumers still think that the treatment and management of supply distribution is easy, and they become astonishing when gangs often occur.

The situation has resulted in SADA always being seen as the sole cause operator if any element of interference with the supply occurs. Secondly, the quality and level of service provided by SADA to consumers is still at a disadvantaged level and does not fully meet the corporate cultural orientation. The professionalism aspects of management, agility and effectiveness of the delivery system towards customer and consumer service should be improved to ease the misconception among consumers. Thirdly, governance, aspects of professionalism in management and corporate culture whose orientation prioritizes the maximization of resources and the improvement of revenue. Among other things translated in the form of consumer satisfaction. However, this segment is still less of a focus in the culture among SADA's own staff at various levels.

Therefore, it is not surprising why the issue of water supply often triggers the polemic phenomenon that consumers are talking about in Kedah such as the display of comments and grievances presented on social media sites or in local newspaper columns n of the study. The reality is that in the context of management at SADA, the role and function of input and output in measuring production levels, actual consumer needs and distribution system efficiency is still not used. It is important to acknowledge that the management of the supply, treatment, and distribution of treated clean water requires the support of systematic mapping and mathematical formula calculations so that the measurement of its performance achieves accuracy.

REFERENCES

[1] Abdullah, S. (2010, March). IWRM and groundwater management. In Workshop on “Role of Groundwater in the Management of Water Resources and Governance Issues in Groundwater (Inclusive of Legislation and Institutional Management)”. Ministry of Natural Resources and Environment.

[2] Adeosun, O. O. (2014). Water Distribution System Challenges and Solutions. https://www.wateronline.com/doc/water-distribution-system-challenges-andsolutions-0001. Diakses pada 26 Oktober 2020.

[3] Al-Mamun, A., & Zainuddin, Z. (2013). Sustainable river water quality management in Malaysia. IIUM Engineering Journal, 14(1).

[4] Benson, D., Gain, A. K., & Rouillard, J. J. (2015). Water governance in a comparative perspective: from IWRM to a'nexus' approach?. Water alternatives, 8(1), 756-773.

[5] Brown, A., & Matlock, M. D. (2011). A review of water scarcity indices and methodologies. White paper, 106(1), 19.

[6] Chang, H., Jung, I. W., Strecker, A., Wise, D., Lafrenz, M., Shandas, V., ... & Psaris, M. (2013). Water supply, demand, and quality indicators for assessing the spatial distribution of water resource vulnerability in the Columbia River basin. Atmosphere-Ocean, 51(4), 339-356.

[7] Kim, C. T. (2012). Malaysian water sector reform: policy and performance. Wageningen University and Research.

[8] *Kedah*. (2019). Laporan Jawatankuasa Kira-Kira Wang Negeri Kedah. Alor Setar, Majlis Dewan Undangan Negeri Kedah.

[9] Lai, C. H., Chan, N. W., & Roy, R. (2017). Understanding public perception of and participation in non-revenue water management in Malaysia to support urban water policy. Water, 9(1), 26.

[10] Nazemi, A., & Madani, K. (2018). Urban water security: Emerging discussion and remaining challenges. Sustainable Cities and Society, 41, 925-928.

[11] SADA. (2019). Laporan Tinjauan Tahap Kepuasan dan Persepsi Pengguna Terhadap SADA. Kerja lapangan bagi penyiapan tesis Ijazah Doktor Falsafah, Politik dalam Pengurusan Bekalan Air di Negeri Kedah.

[12] SADA. (2019). Laporan Tahunan Jabatan Korporat SADA, 2019. Alor Setar, Syarikat Air Darulaman Sdn. Bhd.

[13] SADA. (2019). Laporan Tahunan Jabatan Pengguna SADA. Alor Setar, Syarikat Air Darulaman Sdn. Bhd.

[14] SADA. (2019). Laporan Tahunan Jabatan Sumber Manusia SADA. Alor Setar, Syarikat Air Darul Aman Sdn. Bhd.

[15] SADA. (2018). Water Supply Improvement Works (2018-2021). Alor Setar, Syarikat Air Darul Aman.

[16] SADA. (2018). Mesyuarat Kawal Selia SADA, Bil 1, 2018. Alor Setar, Syarikat Air Darul Aman.

[17] SADA. (2016). Ringkasan Laporan Berhubung Aduan Pengguna Musim Perayaan. Alor Setar: Jabatan ICT Syarikat Air Darul Aman Sdn. Bhd.

[18] Sebesvari, Z., Rodrigues, S., & Renaud, F. (2017). Mainstreaming ecosystem-based climate change adaptation into integrated water resources management in the Mekong region. Regional Environmental Change, 17, 1907-1920.

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