Implementing sanitation marketing as a form of social marketing: A case scheduled desludging service, Malang City

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Abstract
To reach sustainable development goal 6, “clean water and sanitation,” the government has made it mandatory to implement the Scheduled Desludging Service program (in the Indonesian language as layanan lumpur tinja terjadwal / L2T2). The L2T2 program is a septic tank desludging service in a given desludging period following a set desludging schedule. Malang City has successfully implemented the program within a short period despite starting the program only recently, in 2019. The researchers employed a qualitative research design with the case study method to derive a meaning behind a phenomenon, given that the program is actual, specific, and detailed. The research results indicated that the L2T2 program implementation in Malang City had met 7 of 8 criteria under the L2T2 program guideline set by the Ministry of Public Works and Housing. The one criterion that needed to be fulfilled concerning service pricing. Instead, the sanitation marketing implementation in the L2T2 program has met 7 of 10 standards in the sanitation marketing aspect—the three criteria needed to be fulfilled service pricing, CSR strategy, and loyalty program.

Keywords: Scheduled desludging service, domestic wastewater, social marketing, sanitation marketing

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Introduction

Overall national development, environmental health plays a strategic role in creating high-quality human resources. In 2019, the national rate of decent sanitation (wastewater) reached 77.4%, with 7.5% representing safe sanitation, but 7.6% of households still practiced open defecation (IUWASH PLUS, 2019a). The problem currently being faced is related to the low achievement of national sanitation was attributed to the fact that not all septic tanks had met standards in terms of quality, the community awareness of domestic wastewater treatment was still low, programs related to sanitation infrastructure development had yet to be a priority to heads of local governments and hence attracted little attention from policy-makers, and socialization on domestic wastewater treatment had been less than optimal. The Government has initiated various efforts to increase access to decent and safe sanitation facilities, one of which is by issuing Presidential Regulation No. 18 of 2020 on the National Mid-Term Development Plan of 2020–2024, which targets 90% decent sanitation access and 15% safe sanitation access (Central government, 2020). Malang City has touched a 6.19% rate of safe sanitation (Department of Public Works Housing Spatial Planning and Residential Areas of Malang City, 2021). To meet the National Mid-Term Development Plan of 2020–2024, the Government of Malang City has been conducting socialization, publication, education, and promotion of the Scheduled Desludging Service program since 2019.

Malang City is the latest to implement the L2T2 program among East Java regions mentored under the term "Indonesia Urban Water, Sanitation and Hygiene Penyehatan Lingkungan Untuk Semua" (IUWASH PLUS) project. Yet, the city has successfully implemented the program in only 1.5 years. Such a condition is considered unique as it reflects positive deviance, possibly affected by the fulfillment of the L2T2 program guideline and intensive sanitation marketing under the L2T2 program as a form of social marketing. Suppose the L2T2 program is implemented slowly. In that case, it is feared that the results of domestic wastewater treatment under the quality standards, when discharged into the river, will cause water pollution. As a result, the quality of river water, which will be used as raw material for drinking water, is decreasing, which can reduce the degree of public health.

Based on the description of the phenomenon above, this research was aimed to figure out the implementation of the L2T2 program and the sanitation marketing in the L2T2 program in Malang City and therefore expected to provide considerations for decision-making regarding domestic wastewater treatment, particularly in increasing the safe sanitation access performance achievement of Malang City. The case study method was chosen because the L2T2 program is an actual program (real-life events) that is specific, detailed, and detailed so that the meaning of the phenomena that occur can be obtained.

Case description.

Fulfilling the target of 15% access to safe sanitation, which is relatively high, requires strong efforts because the public needs to learn about the L2T2 program widely. In addition, people still think that a septic tank that has not been drained for a long time is good. The existing septic system is not septic, or seepage occurs, resulting in
groundwater contamination by bacteria in the feces. The Government of Malang City has implemented L2T2 to improve the achievement of safe sanitation in Malang City. The activities that have been carried out include socialization, publication, education, and promotion related to the L2T2 program since October 2019.

Scheduled Desludging Service

Scheduled Desludging Service (L2T2) is a service of fecal desludging from septic tanks that are delivered periodically and on schedule, followed by fecal sludge transportation to a treatment plant. L2T2 does not replace L2T3 or On Call Service. Call Service is still necessary for urgent needs and buildings not included in the L2T2 service scope. The functions of L2T2 program implementation are to maintain the functionality of septic tanks in cities/regencies, to improve a city’s/regency’s image as a clean, healthy, and beautiful city/regency, to meet government policy regarding sanitation development, to create a foundation for domestic wastewater service improvement for city/regency residents, and to enhance the city/regency environmental quality (IUWASH PLUS, 2016). The success of the domestic wastewater treatment of local systems is highly dependent on a strong synergy between local apparatuses in the domestic wastewater treatment field and communities/sanitation-managing institutions for its sustainability.

Partnership with IUWASH PLUS

Welie and Romijin (2018) stated that the increasing rapidity of urban development is not offset by access to decent sanitation. Sanitation issues in low-income countries require innovations in infrastructure, technology, social behavior, budgeting, and funding. Their research discussed the potential, challenges, and contributions of non-governmental institutions in facilitating the resolution of urban sanitation issues, including better supply chain management, sustainability, funding, and environment, using a holistic approach in the sanitation sector in informal settlements in developing state cities. The results showed that the non-governmental institutions successfully initiated capacity-building, empowerment, and awareness-raising activities regarding sanitation, involving local communities in creating local networks and raising awareness regarding sanitation, which is essential for subsequent processes.

According to Rosinta (2019), the Indonesia Urban Water (IUWASH PLUS) program is one of the partnerships the Government of Indonesia has engaged in to increase access to drinking water and sanitation services and to improve the hygiene behavior of poor and vulnerable communities in urban areas. IUWASH PLUS works with governmental institutions and donors, the private sector, non-governmental organizations, community groups, and other partners to reach the main goals of increasing access to better-quality drinking water for 1,100,000 urbanites, 500,000 of whom are the 40% people with the lowest welfare of the total population (also referred to B40) and of increasing access to safe sanitation services for 500,000 urbanites.

All cities assisted by IUWASH PLUS Regional East Java already have a fleet of trucks draining septic tanks, and Malang City only had a caravan in 2018. Hence, it is the last assisted area to provide trucks for draining septic tanks. However, Malang City obtained the highest Spandex score in 2019 compared to other IUWAH PLUS Regional Assistance Areas in East Java.
The problems formulated in this research are as follows: (1) L2T2 program implementation in Malang City; (2) Sanitation marketing implementation in the L2T2 program in Malang City; and (3) why Malang City has successfully implemented the L2T2 program within a short period.

**Methods**

The issue under investigation was dynamic-social in nature, so the researchers preferred to use a qualitative research design. The method employed in this qualitative research was the case study method. According to Rahardjo (Rahardjo, 2017), a case study is a series of scientific activities carried out intensively, in detail and in depth related to a program, event and activity, either at the individual level, a group of people, institutions or organizations to gain in-depth knowledge about the event. This research was designed to figure out in greater depth the implementation and marketing of the L2T2 in Malang City through the main aspects of the L2T2 program as well as the supplementary aspect, that is, sanitation marketing of the L2T2 program, so that a comprehensive, in-depth overview of the L2T2 program implementation in Malang City could be captured. The method of analyzing qualitative research data according to Sugiyono (Sugiyono, 2017) is carried out in 3 stages, namely data reduction, data presentation or exposure, drawing conclusions and checking or verification.

Figure 1 is demonstrative of the L2T2 program implementation framework. Three key informants were selected, namely the Head of the Regional Development Plan Agency (BAPPEDA), the Head of the Public Works and Housing and Settlement Planning Office (DPUPRPKP), and the General Manager of IUWASH PLUS for East Java Region. The three aforementioned institution heads played a vital role in the domestic wastewater treatment in Malang City. Supporting informants were recommended by key informants.

Data collection in this research was conducted by observation, in-depth interviews, and documentation of research subjects in a natural setting, with the last two being the primary techniques. The data used were primary data. Data analysis was performed in three stages, namely data reduction, data presentation, and conclusion drawing and verification.

The key informants in this research were the following three:

1. Ms. AP, a supervisory officer with the Regional Development Planning Agency (BAPPEDA), was dispositioned by the Head of BAPPEDA as an informant.
2. Ms. S, an acting officer with the Public Works and Housing and Settlement Planning Office (DPUPRPKP), was dispositioned by the Head of DPUPRPKP to be an informant.
3. Ms. L, the General Manager of IUWASH PLUS for East Java.

Meanwhile, the supplementary informants in this research were the following eight:

1. Mr. A, the Head of UPT PALD of Bekasi City.
2. Mr. K, the Head of UPT PALD of Makassar City.
3. Mr. N, the Head of UPT PALD of Bogor City.
4. Mr. JS, the Marketing Manager of PD PAL Jaya.
5. Ms. RT is a specialist with IUWASH PLUS for East Java.
6. Ms. RS is a specialist with IUWASH PLUS for East Java.
7. Ms. A, an operating assistant with DPUPRPKP, managed the L2T2 program’s social media accounts.
8. Ms. J is an acting officer in the Legal Division of the Secretariat of Malang City.

Unstructured interviews with heads of domestic wastewater operations of Makasar City, Bekasi City, Bogor City, and DKI Jakarta City were conducted in advance to elicit information on the sanitation marketing each of the regions had undertaken to complement the interviews.

Figure 1.
L2T2 Program Implementation Framework

The L2T2 program must pay attention to two aspects, namely L2T2 guideline and sanitation marketing. Table 1 lists the components of each of the aforementioned aspects.

Table 1.
Components of each L2T2 program aspect

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**L2T2 Guideline**

<table>
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<tr>
<th>Functionality of sewage treatment plant (IPLT) as well as the supporting facilities and infrastructures</th>
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<td>Availability of transportation facilities and infrastructures, owned and managed by the managing institution solely or in collaboration with the private sector</td>
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**Sanitation Marketing**

4. Customer segmentation  
5. Program campaign forms (online campaign, offline campaign, event collaboration, community marketing, collaboration with KOLs, voucher use)  
6. Program campaign media (digital marketing: Google My Business, website, social media, news, broadcast message)  
7. Call center availability  
8. Customer service availability  
9. CSR strategy  
10. Loyalty program

Source: Processed Data

## Results and evaluation

### L2T2 program implementation in Malang City

**Regulation and policy availability**

Information on regulation and policy availability was collected from an examination of the documents available at DPUPRPKP of Malang City. According to the information collected, domestic wastewater treatment activities were underpinned by the following legal bases: Law No. 23 of 2014 on Local Governments; Government Regulation No. 82 of 2001 on Water Quality Management and Water Pollution Control; Presidential Regulation No. 185 of 2014 on Acceleration of Drinking Water Provision and Sanitation; Regulation of the Minister of Public Works and Housing No. 04/PRT/M/2017 on the Administration of Domestic Wastewater Treatment Systems (Minister of Public Works and Public Housing of the Republic of Indonesia, 2016); Decree of the Minister of Health No. 288/Menkes/SK/III/2003 on the Guideline on Facilities and Public Buildings (Minister of Health of the Republic of Indonesia, 2003); Regional Regulation of East Java Province No. 2 of 2008 on Water Quality Management and Water Pollution Control in East Java Province (East Java Provincial Government, 2008); Governor Regulation of East Java No. 72 of 2013 on Wastewater Quality Standards for Industries and/or Other Business Activities (Governor of East Java, 2013); Regional Regulation of Malang City No. 1 of 2012 on Buildings (Pemerintah Daerah Kota Malang, 2012); and Regional Regulation No. 2 of 2017 on Domestic Wastewater Treatment (Local Government of Malang City, 2017).

**Managing institution availability**

Information on managing institution availability was collected from examination of the documents available at DPUPRPKP of Malang City: Regulation of the Mayor of Malang City No. 64 of 2019 on the Position, Organizational Structure, Tasks and Functions, and...
Working Procedures of the Public Works, Spatial Planning, Housing, and Settlement Office and Regulation of the Mayor of Malang City No. 88 of 2019 on the Establishment of the Technical Executing Unit of Regional Wastewater Treatment at the Public Works, Spatial Planning, Housing, and Settlement Office.

_L2T2 program implementation plan availability_

UPT PALD DPUPRPKP had yet to draft a planning document that specifically concerns L2T2 program implementation in Malang City. A planning document would be required in the development of the L2T2 program to ensure budgeting facilitation and achievement of the yearly performance target. Therefore, L2T2 program implementation planning was laid down in the Strategic Plan of DPUPRPKP of 2018–2023 and the Annual Work Plan. In the same vain, quarterly performance evaluation and annual performance achievement were laid down in the Roadmap of the Urban Domestic Wastewater Treatment System (SPAL-DP Roadmap) of Malang City.

_Availability, capacity, and functionality of IPLT and supporting facilities and infrastructures_

Based on the results of site observation, Malang City has two Sewage Treatment Plants (IPLT): new IPLT that was built in 2018 with a capacity of 25 m³ and is currently in a good condition and old IPLT that was built in 2000 with a capacity of 35 m³ and is currently in an indecent condition, so in 2021 water treatment from the old IPLT was connected to water treatment at the new IPLT via pipework. Since the new IPLT received 45–50 m³ of daily faecal sludge, the new IPLT came into a state of being overloaded. Therefore, in 2021 a proposal for the construction of a mechanical IPLT to increase the faecal sludge treatment capacity was filed.

![IPLT Supit Urang]

**Figure 2**

_IPLT Supit Urang_
Availability of transportation facilities and infrastructures, owned and managed by the managing institution solely or in collaboration with the private sector.

Regarding the availability of transportation facilities and infrastructures for L2T2 program implementation, Ms. S stated: “For the time being (2021), our fleet consists of three desludging trucks, two big ones and another smaller one, and three three-wheel motorcycles for accessing narrow streets. As of 2021, the L2T2 program operator of Malang City has yet to start a collaboration in transportation facilities and infrastructures procurement with the private sector”.

Human resources availability

The human resources of UPT PALD DPUPRPKP of Malang City were composed of 9 State Civil Servants (ASNs), 4 Supporting Operational Staff (TPOKs), and 12 Daily Freelancers (THLs). The persons in charge of the L2T2 program consisted of 2 ASNs and 6 THLs, detailed as follows: 1 ASN as L2T2 program coordinator and activity report writer, 1 TPOK as call center officer, 1 ASN and 2 THLs as drivers, 3 THLs as desludging technicians.

Budget availability

Based on the review of the Work Plan and Budgeting of Fiscal Year 2021 document, for the purpose of L2T2 program operationalization in Malang City in 2021, a budget of IDR 494,000,360.00 was provided to facilitate service improvement, considering the increased number of customers. The performance achievement based on the DPUPRPKP performance report of May 2021 showed a budget realization of IDR 103,018,872.00, with a portion of IDR 45,000,000.00 allocated for fuel, and a total of 547 septic tanks were desludged. According to the data above, the calculation of the desludging subsidy was as follows: IDR 148,018,872.00 devided by 547 equals IDR 270,601.23. As explained by Ms. S, this amount of budget was allocated for the following: 1) desludging service operation fee for 2 drivers and 3 desludging technicians and 2) truck operation fee, including servicing fee and spare parts replacement fee. This amount excluded salaries for 1 ASN driver as well as supporting administrative staff in charge of call center, information system management, and L2T2 marketing social media accounts.

Regency/city government’s willingness to apply the “Polluter Pays Principle”

The Government of Malang City had demonstrated its commitment to the application of the “Polluter Pays Principle” through the proposal of Regional Regulation Amendment Bill No. 3 of 2015 on Public Service Retribution. When the informant from the Legal Division of the Local Secretariat of Malang City was asked for confirmation, it was found out that Regional Regulation Amendment Bill No. 3 of 2015 on Public Service Retribution has been approved by the Government of East Java Province, but as of the writing of the research, the issuance number and date had yet to be set as they would await for the agreement of local apparatuses related to the retribution in question.
Sanitation marketing implementation in the L2T2 program in Malang City

Service price

Based on Regional Regulation Amendment Bill No. 3 of 2015 on Public Service Retribution, the Faecal Desludging Retribution tariffs imposed for faecal desludging service provision by the Local Government are described as follows: 1) for the business category, with a building for the conduct of for-profit activities, the tariff is IDR 360,000.00/m³; 2) for the non-business category, with a building for the conduct of non-profit activities, the tariff is IDR 260,000.00/m³; and 3) for the social category, with a building for the conduct of activities that do not seek any reward for the good/service provided and/or are not for-profit, the tariff is IDR 180,000.00/m³. The academic review of faecal desludging retribution has involved entrepreneurs in the faecal desludging field in Malang City and received facilitation from IUWASH PLUS, so the service prices are equivalent to those set by private companies. These faecal desludging retribution tariffs are then used as standard tariffs that are published for the public to know, reducing public complaints about septic tank desludging prices set by private providers outside Malang City that are considered to be irrational. As of 2021, the faecal desludging service was free of charge. Customers were only charged with IPLT waste treatment retribution at IDR 15,000.00, but as L2T2 customers they must fill out a registration form with a duty stamp and agree for the next septic tank desludging in three years along with the applicable desludging retribution tariffs.

Program mascot

The L2T2 program in Malang City is branded under the name DOTsKOM, which stands for Layanan Sedot Tangki Septik Kota Malang. DOTsKOM is a series of activities that is comprised of the provision of a septic tank desludging service for the community in compliance with the minimum public works service standard in the domestic wastewater sector, faecal sludge transportation, and disposal to the Sewage Treatment Plant (IPLT). Domestic wastewater treatment is compulsory so that the wastewater disposed to the water body meets the standard and therefore river water and groundwater pollution can be reduced. The mascot of this program is the cartoon character Osiji in a desludging officer costume that has been used at the L2T2 program launching event and in the L2T2 program socialization banner.

Service type and added value in comparison to private counterparts

According to L2T2 program operators in Malang, they have thus far been able to answer service users’ questions and complaints with an explanation. The advantage of this service is that the operators are ready to give free technical assistance about clogging instances that do not need suction with facilities available. Once the desludging retribution tariff is set, this will be guaranteed and free of charge as it does not require suction.

Customer segmentation

Early in L2T2 program implementation in mid-2019, L2T2 program implementation was targeted at housing areas based on the consideration that each house must have a
In 2020, keeping in mind the community’s enthusiasm about the L2T2 program, the customer targets were not only those in housing areas but also those in settlements, following their interests that were identified during sanitation sensus. This is in line with the Malang City L2T2 program marketing strategy document that community members who are aware of personal hygiene and health as well as social status are the largest segment to whom the service is offered.

**Program campaign forms (online campaign, offline campaign, event collaboration, community marketing, collaboration with KOLs, and voucher use)**

One of the L2T2 program promotion forms applied by DPUPRPKP is to conduct socialization for the community prior to sanitation sensus, in which case the surveyors deliver the desludging service along with the facilities from DPUPRPKP in person and inform the community that currently the service is still free of charge under the condition that the community express their willingness to be subscribed to the L2T2 program and to be committed to periodic desludging for a retribution tariff following the applicable regulation.

Other socialization, banners are also used as offline promotion media in the kelurahan in which the sanitation sensus is conducted. These banners that contain information on the L2T2 program are mounted at intersections in Malang City. In 2019, DPUPRPKP planned L2T2 program promotion in coincidence with car free day events as well as other Malang City Government events. As such, a budget for the procurement of promotion facilities was allocated in 2020. However, this plan has yet to be realized due to the outbreak of the COVID-19 which caused crowds to be restricted. The program promotion in 2021 was performed using DPUPRPKP tank trucks labeled with DOTsKOM and call center phone number in the hope that they would grab the community's attention when it was passing Malang City roads and desludging sites. Meanwhile, IUWASH PLUS attempted to enhance the community's understanding through monitoring and participative evaluation with the involvement of the community.

**Program campaign media (digital marketing: Google My Business, website, social media, news, and broadcast message).**

Based on the field observation, Malang City's L2T2 program campaign took advantage of UPT PALD's and DPUPRPKP's Instagram and Facebook accounts, DPUPRPKP's website, and broadcast via MalangTIMES' online media. However, DPUPRPKP has yet to utilize broadcast message over social media for the online campaign. Besides, UPT PALD was also observed to have yet to make optimal use of Google My Business tagging because the results of the search on Malang City desludging showed that UPT PALD was still among the lowest.

**Call center availability**

The field observation also revealed that, in implementing the L2T2 program in 2021, UPT PALD run a call center service by office telephone (0341-564000) and WhatsApp (0895-3906-40000).
Customer service availability

In addition, according to the field observation, the community showed a high degree of enthusiasm about participating in the L2T2 program because while delivering the service, both L2T2 program operators and call center officers constantly offered them with solutions that were related to their complaints. In this case, the call center officers of UPT PALD doubled as customer service officers.

CSR strategy

As of 2021, DPUPR PKP of Malang City had yet to engage in any cooperation with regard to corporate social responsibility in relation to the L2T2 program because the high level of waste treatment investment was not proportionate with the benefits expected by companies in the product marketing sector.

Loyalty program

Since the L2T2 program delivered desludging service only once to customers, the activeness of customers in this program could not be assessed. However, after the retribution tariffs are set, it is likely that souvenirs will be given out to customers who meet certain criteria.

Responses from comparable service entrepreneurs in Malang City

The Government of Malang City had conducted socialization on L2T2 program policy and regulation for faecal desludging service providers in Malang City and involved these faecal desludging service providers in the academic investigation of desludging retribution. On that occasion, these faecal desludging service providers were informed about potential cooperation in L2T2 program implementation due to the limited fleet that was in the Government of Malang City's possession, and they were asked for their responses to this program.

Involved local apparatuses

The local apparatuses of Malang City that were involved in the L2T2 program implementation were as follows: 1) Perumda Air Minum Tugu Tirta in collaboration with drinking water service subscribers for sanitation sensus purposes; 2) the Population and Civil Registration Office in collaboration with population sensus for sanitation sensus purposes; and 3) the Communications and Information Office for the purpose of MIS sensus and operations as well as service information dissemination via the media social accounts of the Government of Malang City.

Innovations

Development of a customers database based on the website si-paldi.malangkota.go.id and service provision via smartphones on the domain dotskom.malangkota.go.id are some innovations of DPUPR PKP in support of the L2T2 program. As stated by Ms. S, “Our innovations are, first and foremost, a database that we created on the onset using
SI-PALDI application and, second, and MIS for the L2T2 implementation”. Based on the field observation, the data collection innovation SI-PALDI remained in use until 2021, while the innovation MIS was not applied until 2021.

**Inhibiting factors**

Some of the barriers to L2T2 program implementation, according to Ms. S, were insufficient number of human resources, contour of ground, and road access. Meanwhile, according to Ms. RT from IUWASH PLUS, geographical contour, minimal use of online media for promotion, and the population’s character were the barriers to L2T2 implementation. Regarding the last of the three, Ms. RT opined that the intelligence and critical thinking levels of urban people impeded the attempt to give an understanding on the L2T2 program.

**Supporting factors**

The operators of the L2T2 were intensely passionate about carrying out the service provision because users expressed their satisfaction and recommended the service to their neighbours. There was even a resident who paid IPLT Supit Urang a visit, uttered that the service was worth a subscription fee, and expressed their appreciation for the service they have received.

**Discourse on the future of the program**

The policy of the Government of Malang City is exceptionally conducive to the domestic wastewater treatment sector. Based on the academic investigation on desludging service retribution calculation, the L2T2 program is predicted to contribute some money to the Locally Generated Revenue (PAD). It turned out that this program’s potential has attracted the interest of Perumda Air Minum Tugu Tirta for implementation as a national drinking water and wastewater integration program in Malang City. Ms. L stated that the Ministry of Public Works and Housing had examined the L2T2 program integration at Perumda Air Minum Tugu Tirta. However, according to the analysis of the Chairman of IUWASH PLUS, this will have to go a long way, with local regulations revisions, the amendment to Mayor regulations, and technical discussions before implementing the recommendations from the Ministry of Public Works and Housing being required. The implementation of the L2T2 program integration will have to await the local government’s decision. In this case, IUWASH PLUS assists domestic wastewater managers over the mentoring period.

**Roles of IUWAH PLUS**

The roles of IUWASH PLUS, with UPT PALD’s advocation, in realizing the L2T2 program according to the needs were to provide assistance in the prospective customers database development, to provide assistance in writing about IPLT’s funding needs and capacity to implement the L2T2 program and to conduct community behavior modification activity, and to devise L2T2 program marketing strategies to introduce the L2T2 program to the community.
Roles of BAPPEDA of Malang City Indonesia

The Regional Development Planning Agency (BAPPEDA) of Malang City is a Regional Apparatus whose tasks and functions include coordinating all Regional Apparatuses. All municipal government affairs are integrated into a Regional Mid-Term Development Plan (RPJMD), which is then broken down into a Regional Apparatus Strategic Plan and further broken down into a Regional Apparatus Yearly Work Plan. BAPPEDA integrates sanitation issue by verifying the plan documents, making sure that they have included the domestic wastewater treatment program. In addition, BAPPEDA also monitors domestic wastewater performance achievement through the Housing and Settlement Work Group (Pokja PKP).

L2T2 program marketing team

To promote the L2T2 program on a massive scale, IUWASH PLUS recommended that L2T2 Program Marketing Team be founded and a dedicated staff in charge of creating program contents over social media be hired. It also invites desludging service customers to write a review and a comment on UPT PALD’s Google My Business to increase UPT PALD’s rating. Before the marketing strategy document was drafted, as Ms. S stated, an L2T2 Program Marketing Team was established in 2020 and had been providing various promotional instruments in print (banners, posters, borchures, stickers, etc.) and digital forms (e-posters, e-brochures, etc.), including attractive designs and messages addressed to the targets, but in 2021, no more L2T2 Program Marketing Team was formed.

Sanitation Index of Malang City in 2021

The Sanitation Index scores of Malang City for 2016, 2017, 2018, and 2019 were 37.5, 57.5, 61, and 64, respectively. The year-on-year increase in the Sanitation Index score indicated the Government of Malang City’s commitment to improving services in the domestic wastewater sector. Based on the Sanitation Index assessment conducted by the end of April 2021, Malang City scored 76 on the Sanitation Index in 2020, up by 12 points from 64 in 2019. This rise was thanks to the performance achievement in the institutional aspect from human resoures percentage (up by 3 points), in the regulatory aspect from the validation of the Regional Head Regulation (up by 6 points), in the financial aspect from improved Regional Budget (APBD) utilization percentage (up by 1.5 points), and in respect to sanitation funding from sources other than the Regional Budget (up by 1.5 points).

Evaluation

Managerial abilities in the L2T2 program

UPT PALD DPUPRPKP has had a marketing strategy from a review by IUWASH PLUS marketing experts at the end of 2020, but field observation results unveiled that until 2021 offline promotional media such as banners, logo, mascot, and fleet had yet to see an upgrade. Online promotions still contained documents on desludging service provision in target locations. No infographic contents with educative, interesting materials as documented in the marketing strategy review have been presented. Based on the information from both the key informants and supporting informants from UPT PALD of Malang City, BAPPEDA of Malang City, and IUWASH PLUS, Malang City’s success in implementing the L2T2 program in a short period of time was influenced by the following factors:
Strong commitment of the Government of Malang City through the policy, regulation, and managing institution available, as shown by the issuance of Regional Regulation No. 2 of 2017 on Domestic Wastewater Treatment, Regulation of the Mayor of Malang City No. 88 of 2019 on the Establishment of Regional Wastewater Treatment Technical Executing Unit of the Public Works, Spatial Planning, Housing, and Settlement Office, and Circular Letter of the Mayor of Malang City No. 600/1325/35.73.303/2019 on the Implementation of Domestic Wastewater Treatment, which require that the community must use the scheduled and unscheduled desludging services provided by the Government of Malang City or a desludging service provider that has entered into a Faecal Desludging Management Cooperation Agreement with the Government of Malang City.

Strong commitment of the Government of Malang City to meeting the budgeting need to be in compliance with the Public Works Minimal Service Standard in the domestic wastewater sector through the provision of sewage treatment facilities and infrastructures as well as the provision of faecal sludge transportation facilities and infrastructures since the domestic wastewater treatment tasks and functions fall to DPUPRKP.

Strong commitment of the Government of Malang City to allocating a budget for promoting the L2T2 program through online and offline socialization and provision of promotional instruments (banners, billboards, brochures, stickers, smartphones, and profile videos). Sanitation sensus program which also provides a way for L2T2 program socialization and accommodates promotion of free desludging service under certain conditions; Availability of call center staff who are responsive in explaining and scheduling the L2T2 program; Support from IUWASH PLUS in providing advocation for Head of Region, Heads of Regional Apparatus and the ranks, and the community, especially with respect to behaviour modification related to domestic wastewater treatment; Mentoring support from IUWASH PLUS experts in the conduct of academic investigation into desludging retribution, development of a customers database, SPAL-DP roadmap making, L2T2 program marketing strategy making, sanitation sensus training, and running the IUWASH PLUS desludging Management Information System (MIS); The characteristics of Malang City residents who are smart and critical, so if they have gained an understanding of the benefits of a program, it will be easy to direct them in the continuous implementation in their immediate environments; Education through promotions; and routine monitoring and evaluation of the performance achievement in the domestic wastewater treatment sector.

The Government of Malang City has complied with all aspects of the L2T2 guidelines set by the Ministry of Public Works and Public Housing (Minister For Public Works and Human Settlements, 2014). This is supported by research by Roosmini and Rahmawati (Roosmini & Rahmawati, 2007) which recommends that the success of domestic wastewater management services is strongly influenced by government policies at both national and regional levels; research by Holm (Rochelle et al. 2015) which states that it is necessary to manage sewage sludge management policies in the context of collection, transportation, sewage treatment, worker safety, which can be applied to local and communal septic tanks; Hadiyanto (Hadianto, 2019) and (IUWASH PLUS, 2019b) research which recommends the need to fulfill the basic criteria for starting L2T2.

Malang City Government has implemented sanitation marketing in the L2T2 program. Okwueze (Okwueze, 2020) states that sanitation marketing is an effort to apply social marketing and commercial marketing approaches to increase the fulfillment of needs
and demands for better sanitation facilities. Implementation of sanitation marketing according to research by Holm (Rochelle et al., 2015) which states that the government needs to promote affordable drainage costs and marketing innovations, encourage the grouping of septic tank dewatering businesses, research by Li (2017) which recommends that the government use marketing management concepts, methods and techniques to realize a real transformation of government management that service-oriented, Okwueze (Okwueze, 2020) research recommends sanitation marketing strategies through mass media, Serrat (Serrat, 2017) research related to public sector marketing strategies includes efforts to influence positive public behavior through social marketing. Tjiptono (2011) states that a successful social marketing strategy requires a good understanding of consumer behavior that all marketing strategies and tactics are based on explicit or implicit beliefs about consumer behavior. In this study, it is known that The Government of Malang City has determined the segmentation of L2T2 customers, chose the target market (target market) and established positioning as a provider of Scheduled Sludge Services which has more value than the private sector.

The Government of Malang City as one of the areas assisted by IUWASH PLUS has been able to implement the L2T2 program according to the stages determined by the Ministry of Public Works and Public Housing, this is in accordance with Okwueze’s research (Okwueze, 2020) which states that intensive collaboration between stakeholders and world organizations such as LIEN AID, WATER SHED, USAID, DAI, and others are urgently needed to support sanitation marketing, research by Welie and Romijn (van Welie & Romijn, 2018) recommends that non-governmental organizations have the potential and contribute to facilitating the solution of urban sanitation problems. The social marketing strategy carried out by The Government of Malang City in implementing the L2T2 program uses a service quality gap approach in accordance with the research of Zeithaml (Zeithaml et al., 2010) who identified a gaps model of service quality approach to see the delivery of service quality in a structured and integrated manner.

**Conclusion**

The Government of Malang City has implemented the L2T2 program and has met 7 of 8 criteria in the L2T2 guideline established by the Ministry of Public Works and Housing. The one criterion unfulfilled concerned the establishment of Faecal Desludging Retribution in Regional Regulation Amendment Bill No. 3 of 2015 on Public Service Retribution. The Government of Malang City has implemented sanitation marketing in the L2T2 program and has met 7 of 10 criteria of sanitation marketing. The criteria unfulfilled were those on service price, CSR strategy, and loyalty program. Service pricing awaits the establishment of Faecal Desludging Retribution in Regional Regulation Amendment Bill No. 3 of 2015 on Public Service Retribution. The sanitation marketing mode that was not implemented was offline campaign in the forms of event collaboration, community marketing, collaboration with KOLs (influencers), and use of vouchers and program campaign media like website and news portal.

In general, the Government of Malang City’s success in implementing the L2T2 program within a short period owed to its strong commitment to domestic wastewater treatment through policy and regulation, resources and budget allocation, support from IUWASH PLUS as a partner, and the community’s active role in supporting the L2T2 program implementation holistically. Based on the abovementioned, DPUPRKP should develop a non-cash desludging retribution payment system to improve its
reporting accountability. Further research on the procedure and mechanism of drinking water and domestic wastewater treatment integration in Malang City and the program marketing tool to the community is needed.

**Abbreviations**

BAPPEDA = Badan Perencanaan dan Pembangunan Daerah (The Regional Development Planning Agency)

DPUPRPKP = Dinas Pekerjaan Umum Penataan Ruang Perumahan dan Kawasan Permukiman (The Public Works and Housing and Settlement Planning Office)

IUWASH = Indonesia Urban Water, Sanitation and Hygiene

UPT PALD = Unit Pelaksana Teknis Pengolahan Air Limbah Daerah (The Regional Wastewater Treatment Technical Implementation Unit)

IPLT = Instalasi Pengolahan Lumpur Tinja (Sewage Treatment Plants)

L2T2 = Layanan Lumpur Tinja Terjadwal (Scheduled Desludging Service Program)

PAD = Pendapatan Asli Daerah (Locally Generated Revenue)

**References**


## Appendix 1

### Results of Observation and In-depth Interviews Regarding Promotion Implementation

<table>
<thead>
<tr>
<th>Forms of Promotion</th>
<th>Aims of Promotion</th>
<th>Observation and In-depth Interview Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logo and Mascot</td>
<td>To identify the product and service</td>
<td>Completed</td>
</tr>
<tr>
<td>Online Campaign</td>
<td>To disseminate information on the desludging service in an interactive, easy-to-understand way through interesting, creatively created posters with educative contents over social media</td>
<td>The campaign materials are completed. Implementation via UPT PALD’s IG and FB accounts still uses the old logo.</td>
</tr>
<tr>
<td>Offline Campaign</td>
<td>To campaign with the tag #BANGGASUDAHSEDOTWC and encourage UPT PALD’s desludging service use through interesting campaign activities using standing banners, street banners, and merchandises or brochures</td>
<td>The campaign materials are completed. Implemented in L2T2 program socialization and L2T2 program launching events. Standing banners, street banners, and merchandises or brochures still use the old logo.</td>
</tr>
<tr>
<td>Event Collaboration</td>
<td>To educate on the importance of desludging service on government-initiated events</td>
<td>Yet to be implemented. Planned to be implemented in collaboration with TP PKK of Malang City.</td>
</tr>
<tr>
<td>Collaboration with Key Opinion Leaders</td>
<td>To raise public’s awareness of the importance of using desludging service through influencers to help promote UPT PALD’s desludging service and to relay the #BANGGASUDAHSEDOTWC campaign message via word-of-mouth and selected influencers’ social media accounts</td>
<td>Yet to be implemented. Set to be implemented in 2022.</td>
</tr>
<tr>
<td>WhatsApp Business</td>
<td>To convert regular WhatsApp into WhatsApp Business to strengthen brand awareness and to take advantages of the many features available</td>
<td>Implemented</td>
</tr>
<tr>
<td>Broadcast Messages</td>
<td>To raise public’s awareness of UPT PALD’s desludging service and to disseminate information on UPT PALD’s desludging service to the community massively by two methods: WhatsApp</td>
<td>WhatsApp Broadcast Group is used in sanitation sensus in selected kelurahan. Location-based SMS has yet to be applied.</td>
</tr>
</tbody>
</table>
| Table 1: Overview of Implemented Activities and Assuming
<table>
<thead>
<tr>
<th>Full of Potential Customers of UPT PALD Malang</th>
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</thead>
<tbody>
<tr>
<td><strong>Broadcast Group and location-based SMS</strong></td>
</tr>
<tr>
<td>Google My Business</td>
</tr>
<tr>
<td>To adjust business’ whereabouts and strengthen relationships with potential customers online on both Google search and Google Maps</td>
</tr>
<tr>
<td>Website</td>
</tr>
<tr>
<td>To make it easier for UPT PALD to be discovered by prospective customers when they need the service and to improve professionalism</td>
</tr>
<tr>
<td>Halo UPT PALD</td>
</tr>
<tr>
<td>To run a call center with special phone number that is responsive, reliable, and always present whenever needed</td>
</tr>
<tr>
<td>VIC Program</td>
</tr>
<tr>
<td>To increase customer engagement through a series of activities run by UPT PALD of Malang City</td>
</tr>
<tr>
<td>Community Marketing</td>
</tr>
<tr>
<td>To actively involve the community and to raise awareness among the community</td>
</tr>
<tr>
<td>Social Media</td>
</tr>
<tr>
<td>To find potential customers using the existing and potential customers program among active Internet users</td>
</tr>
<tr>
<td>UPT PALD News</td>
</tr>
<tr>
<td>To increase online activities with the communities by posting latest news articles as part of active marketing activity for branding purposes from the community’s perspective</td>
</tr>
</tbody>
</table>

Source: Processed Data, 2021.
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