

A Study on the Awareness of PUC centre Context and its contribution towards Controlling the Vehicular Air Pollution

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Abstract

International Organization brought out the concept of context of any business entity or system for standardization (ISO) in their Standard ISO 9001:2015, Quality Management Systems –Requirements, 4th rev. Sep 2015. In this standard, it was to understand organization or system's **context** and determine **risks** as basis for planning. The preventive actions evolve when we determine context (internal, external issues & interested parties and their impacts on the business entity) during planning of the business entity. In our case of PUC, its internal and external issues; imbibe in them the factors that influence the working of PUC operation responsible for vehicle emission certification that is what the context or '**Operation environment**' of PUC centre are.

All vehicles pass the emission levels and get PUC certificate but the vehicular air pollution is rising. This state is continuing indicating under performance of PUC certification activity. PUC certification of vehicles in the wake of rising air pollution have assumed significant importance because of its effects on the humanity (health problems leading to deaths) and global warming. That means PUC process is a high risk activity likely to result in uncollectible harm to people if it is continued in this way. It is therefore desirable to bring breakthrough in its working. For PUC, the knowledge of its organizational context among its employees would have not deteriorated their functioning to this level, had they been made aware of it when taking up their assignments. PUC entity context is central to its performance expectations.

The awareness of Context is a proactive management step which might be lacking in the activity of PUC and its employees and that may be a cause of its below par performance.

In this paper the internal context means internal issues such as **values, culture, knowledge, performance, capabilities, complexity of processes & organization structure, Roles & responsibilities** have been taken for analysis as these are the determinant factors of its effective performance and at their first place pertain to the



activity owner in the PUC operation. The required data has evolved from different studies and their reports. The results of the analysis are summarized and thereupon the recommendations are made which when implemented will make the PUC certificate effective to control the vehicular air pollution.

Key words: Context of organization, PUC certification of vehicles, vehicular air pollution, understanding internal/external context, Risk based thinking.

Introduction

The Pollution Under control (PUC) process is unique as its product vehicular emission certificate is not only useful for vehicle owner but it is concerned with protection of human health and protection of environments. Pollution under Control (PUC) process is operating at the base of Vehicular emission control hierarchy under CMVRs 1989 (Central Motor Vehicle Rules 1989) and is found in Fuel/Petrol stations across the country. This process is managed under the program of Inspection & Maintenance (I&M) of MoRTH (Min. of Road Transport & Highways, Govt. of India) by STA (State Transport Authority)/RTO (Regional transport Officer) in each state, for on-road vehicles; public or private. The PUC centre is responsible for on-road vehicles emission certification.

Till now the studies or audits have graded the performance of PUC as dismal since all vehicles pass the emission levels but the vehicular air pollution is rising causing health related issues and environmental degradation. One can put up the above statement that the PUC process is a high risk activity likely to result in uncollectible harm to people if it is continued in this way. PUC test for emissions of Vehicles have assumed significant importance in the wake of rising Air pollution and its effects on the humanity (causing health problems and deaths) and global warming; specifically metro cities of the country. The status today is that the PUC certification has proved very ineffective and continuing in this state over the past 20 years or so. The government is also taking lot of measures like health insurance and air monitoring system installations etc. But it is very much desirable to bring breakthroughs in PUC centre working. This paper sets the bid in this direction.

The PUC centre operator runs it as his business under all regulatory frame works of central and state Governments. His educational qualifications are Matriculation & certificate in Motor mechanic or ITI trained automobile technician (may be coupled with some experience). To establish it, he did investments and complied with the other requirements of state transport authority. He has been imparted 2-4 days training on operation & measurements of vehicular emission levels including equipment maintenance. It is, therefore, a private service entity operating under governmental legal framework and hierarchy.

For PUC, to overcome present situation and bring breakthrough, the decision makers/ organizers need to see beyond impasses. Solutions to problems can become accessible when decision makers see beyond for influences on the business. Such influences may be external or internal to the business entity or may be stakeholders' interests.

Factors impacting the business entity: The business context of the organization consists of the environment in which it operates and refers to internal and external issues relevant to the activity of the



organization and needs & expectations of its interested parties/stakeholders. In case the context of an entity is seen/ assessed beforehand most of the aspects of it come to the notice of management and then they can take action or set actions for its correct functioning. Preventive actions are better than corrective actions.

People working in PUC entity may not be aware of the ‘context of PUC center organization and that may be the big cause of it’s under performance. The context of organization creates instincts and motivates people working there to make it not only efficient but effective also. **The knowledge of org context puts demands on the people working in the entity to know all about the org in its entirety.** At this point we may very well say that the awareness of Context is a proactive management step which might be lacking in the activity of PUC and its employees and that may be the one of the big cause of its below par performance. Thanks to International standard ISO 9001:2015 for bringing context in the forefront...

Overview of context of PUC Entity

In PUC, regulatory compliance can be effective in case the organization that is their employees are aware of its context. Context- the situation in which something happens or that caused something to happen. In simple language, the context means, the setting of an event. One can think of context as all the information one need to know to truly understand the organization. And that is possible only when the employee has the knowledge of organization more than what he thinks he has.

Understanding the organization and its context: An organization context involves its “operation environments”. Knowing Context of business entity is a step of proactive management. For PUC, the knowledge of its organizational context among its employees would have not deteriorated their functioning to this level, had they been made aware of it before taking up their assignments. The context must be determined both within the organization and external to the organization

The context of organization or business entity consists of its issues (internal as well as external, it is facing) and its interested Parties / stakeholders as given below in Table1:

Context of Organization				
Issues		Needs & expectations of Interested Parties		
Internal Issues	External Issues	Customers	Suppliers	Regulators

Table -1

Internal Issues are **values, culture, knowledge, performance, capabilities, complexity of processes & organization structure, Roles & responsibilities.** Knowledge and awareness about these issues is a must, to achieve its objectives, for all the employees in the business entity.

External context pertains to issues arising from **political, ethical, legal, technological, environmental, competition,** market (**external providers/suppliers**), **social and economic environments** in the country.

Interested parties or stake holders

In order to make the business venture successful, we need to identify, attract and retain the support of the relevant interested parties. The interested parties of PUC entity are:

- a) Customers (vehicle owners)
- b) STA/RTO (State Transport Authority/Regional Transport Officer): Our immediate hierarchical authority and regulation implementer
- c) Mo RTH (Min. of Road Transport & Highways, Central Government): Regulator
- d) CPCB (Central Pollution Control Board, Min. of environment & Forests, Central Government in support from SPCB : Regulator & Auditor
- e) ARAI (Automotive Research Institute of India, Govt. of India): Emission standards
- f) Automobile & auto components manufactures (Like SIAM)
- g) Traffic Police (State Government)
- h) Citizens/Common people
- i) Suppliers like AMC Contractor, Cal Agencies, Tool gauges & stationary suppliers etc.
- j) Media
- k) Owner of Petrol Filling Station
- l) Owner of Petrol Filling

The context of PUC entity can be mapped as shown below in Fig.1

PUC Centre context.

For PUC Operator & Management

Purpose: Three Levels

1st level: ROI

2nd Level: Needs & Expectations of Interested Parties

3rd Level –Service: Testing & measuring vehicle

Emissions & certification

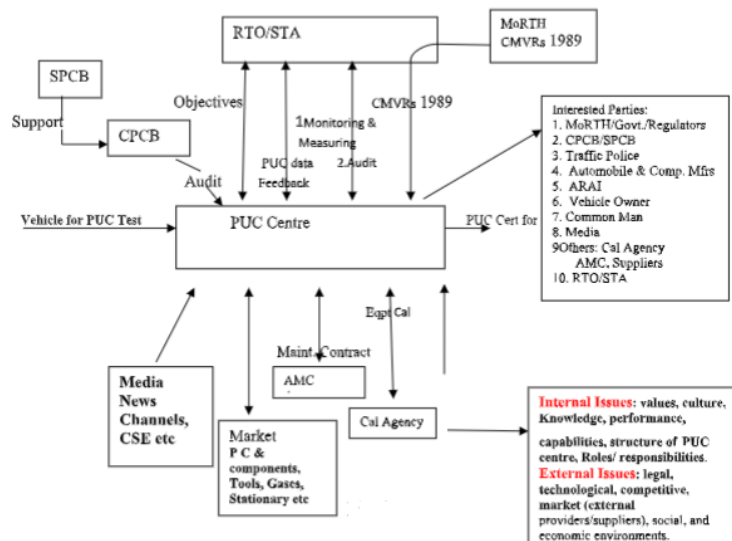


Fig.1: Showing PUC center context



External and internal issues clearly indicate that the PUC centre can't simply focus on providing PUC certificate to vehicle owners but should know that the issues are having bigger purpose of environment protection & human safety.

Scope of the Study & paper: The organizers or establishment owners have the responsibility to work for the context of PUC entity so as to derive policies and procedures that provide results pertaining to its purpose for which it is established.

PUC entity context is central to its performance expectations. However in this study we will (i) enumerate (carry out the analysis of) the PUC entity's internal issues, arrive at results and provide recommendations for implementation.

Other parts of the context are needed to be looked into by the organizers or owners for analysis as well as implementation.

Objectives of the paper & study:

To develop the awareness of internal context so that PUC operator may be able to perform the vehicle emission certification activity in an efficient manner and effective way (**Strengthening PUC entity**).

To make PUC operator aware of the (i) steps (Flow diagram) of the PUC activity of Vehicle emission certification for knowledge of complexity of his process (ii) To enable him to have oversight of vehicle tail pipe for its common defects of loose, leaky, worn out or filled with smoke/oil residues/dust etc., before taking up the emission measurements. An aspect very critical for emission sampling by the sensor and (iii) To make PUC operator aware of hierarchical organization structure to know his duties and responsibilities.

To bring to the information of management of PUC centre so as to take up the context of PUC for an in-depth review and implementation.

Data & Data sources

Data is derived from studies carried out by different agencies including the UN report on the functioning of PUC centre. The data from the reports of audits conducted by CPCB and others also included. Although the data is secondary but it is taken from the reports for which the data raised by them has not been used nor there is any writing found of this type. By leveraging the data and information from the reports of studies and audits are used to evaluate the context of PUC entity. This knowledge is particularly advantageous to look through into the internal issues which are mostly useful for the PUC operator and serves the purpose of this paper. Additionally the studies and audit reports conducted on the performance of PUC centre offer essential data pertaining to different internal issues given above.

By and large these provide understanding of strengths and weaknesses in PUC. Therefore to know the context particularly internal context that is PUC internal issues responsible for vehicular emission certification, data and data sources play a vital role. These reports provide comprehensive data for values, the practices adopted, state of PUC process functioning and resulting performance.



Knowing the context and then planning preventive actions for implementation is to eliminate cause (s) that would have created a potential hazards or undesirable situations. Changes can be made or implemented to address an issue, hazards, or weaknesses in a system. Preventive action also can include ways to improve an organization's workflow or situation.

Analysis

Cutting across the lines, determining context and analyzing it will make preventive actions part of strategic planning as well as operation and review. Such awareness at least at the activity level will generate motivational instincts in the PUC operator to produce right vehicular emission certification. From there on all actions will emanate to be taken by operator/activity owner and or management.

In order to decide what preventive actions your organization needs, perform a risk analysis of the issues. This process identifies risks and potential issues that could arise from your processes. From there, make a plan of actions to address each area of risk.

Methodology for risk evaluation

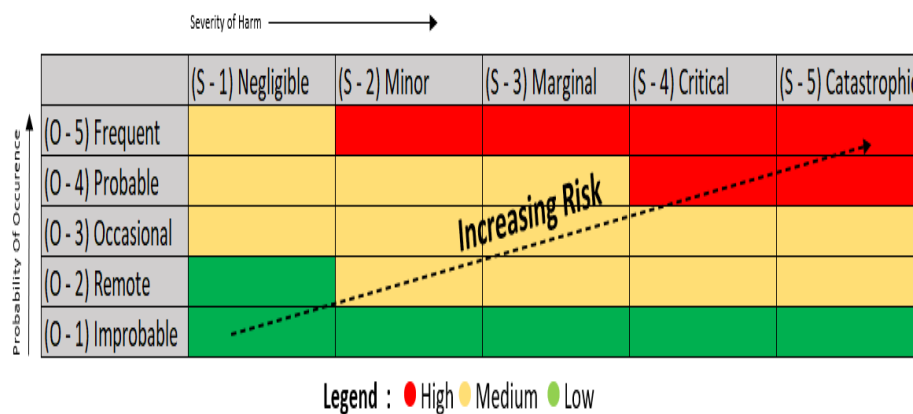
Risk is defined as ‘the effect of uncertainty’ on an expected result. This encompasses any deviation, positive or negative. The intent is for an approach to risk based thinking which is proactive and promotes continual improvement.

Risk Based approach for analyzing issues not only improves internal activities/process but it improves:

- Customer confidence
- assures consistency of service and
- establishes proactive culture of prevention of defective output that is PUC Certificate.

Risk can be defined by two parameters. (i) Severity. (ii) Probability (likelihood). Severity is the Seriousness of the harm: Scale: S1 to S5 as given below in the diagram;

Probability is the likelihood that the harm will occur: Scale: O1 to O5 as shown below in the diagram:



Severity of Harm		Probability of Occurrence	
S - 5	Catastrophic	0 - 5	Frequent
S - 4	Critical	0 - 4	Probable
S - 3	Marginal	0 - 3	Occasional
S - 2	Minor	0 - 2	Remote
S - 1	Negligible	0 - 1	Improbably

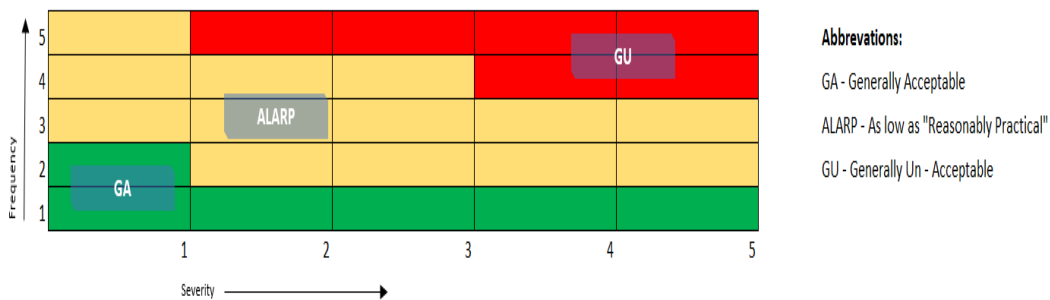


Fig. 2: Showing Risk diagram

With the help of Risk worksheet, we find the risk score of a particular issue or context. The risk score provides its significance. If risk score is more than 9, the risk is significant, and we (either the management or PUC entity owner) need to take preventive action for the potential harm. That is a proactive management or indication of required action.

Risk score for internal Context that is internal issues of Organization

Categories of internal issues confronting PUC centre

As defined in para3 above we need to analyze, the internal context that is internal issues viz values, culture, knowledge, performance, capabilities, complexity of processes & organization structure, and Roles & responsibilities. These are:

Values: There is link between values perceived by employee and management. Org. performance can be achieved if Founder/org values permeate at the workplace. Values such as Being accountable, Focusing on details, Delivering quality, Being honest, Respecting policy and rules, Meeting deadlines, Showing tolerance and a team member.



Culture: Culture of employees count for their performance in an organization. A strong org culture brings enhanced trust and cooperation. Culture also provides an informal control mechanism, a strong sense of identification with the org. If your culture is toxic, you will get low morale and bad performance. Culture is Beliefs, principles, practices,& differences that exist at the work place.

Knowledge: 1. Work place knowledge that can be shared, consumed, and applied to support the functioning of the organization. 2. Knowledge of veh. emissions & their effects. 3. Org must create environments conducive to learning and knowledge sharing.

Performance: a).Employee does not know performance; it is how a member of staff fulfils the duties of their role, completes required tasks and behaves in the workplace b). Performance helps to enforce goal setting and achievement in a defined roadmap. Three factors of performance viz a) Quality (i) quality mistakes to be tracked..ii) Feedback to RTO & corrective actions. iii) Institute monitoring & measuring in PUC. (b) Delivery: right delivery of Product. (c) Availability of process equipment i.e maintenance of process equipment. (d) All needed equipment, software etc to be provided at PUC.

Capabilities: In the workplace, employee capability is the ability to perform their duties effectively. Possessing the required skills and knowledge for the job are essential aspects of capability. It is the ability to perform the work expected of them to the required standards and procedures. Constraints in terms of resource like equipment, technology etc hampers capability.

Roles & responsibilities: The running of any business depends on everyone understanding their roles and responsibilities. By understanding their responsibility, they can perform their assigned tasks efficiently.

For an employee, **Job title is his role** and **job description is his responsibility**. Regulations compliance is important aspect here.

Complexity of processes & organization structure: (a) Process working and flow lines to be known to employees. Flow diagram of PUC process for all actions during certification determines the complexity of the process as well as decision points.(b) Organization structure depicts authority & reporting lines etc. (i).Through organizational structures, employees get to know about their duties and responsibilities.(ii).Org structure sets forth relative authority levels and reporting lines i.e means to manage across it.

For risk score, we have used audit reports and studies for the non conformities and observations they reported.

(i) **Audit report:** January 17, 2017 and February 6, 2017:

PUC%20Challenges%20CSE%200.32057800_1580730430_anumita-mumbai-bsvi-readiness.pdf: And Vehicle inspection programme needs an overhaul: Centre for Science & Environments, Down To Earth. Supreme Court directed the Environment Pollution (Prevention and Control) Authority (EPCA) for Delhi, National Capital Region (NCR) for inspections of PUC centres. Centre for Science and Environment (CSE) for



EPCA carried out a physical inspection of PUC centres in Delhi to chart a roadmap to improve the programme.

(a) **Risk Worksheet** -1 (a) Delhi NCT, PUC centre across Delhi, & NCR (National Capital Region) Delhi.

Audit NC or Study observation	Category of internal Issue responsible (6.2.1.1)	Severity	Likelihood (probability) of occurrence	Risk Score	Opportunity	Remarks
1, Flawed Implementation a) Serious quality concerns in the way PUC tests are conducted and equipment maintained in centres across NCR	At first hand it seems Performance i.e Quality Checks during certification (checklist) b) Regular Equipment Maintenance. 2. Capability	5	5	25	(a) To impart training on QA/QC checks, (b) Institute monitoring & measuring	In a way awareness & application of internal issues of all categories are missing. Training to PUC operator & manager

Audit NC or Study observation	Category of internal Issue responsible (6.2.1.1)	Severity	Likelihood (probability) of occurrence	Risk Score	Opportunity	Remarks
2. Rampant cheating and malpractices, which includes fake software, false passes and inappropriate tests	Performance, Knowledge, Roles & responsibility a) Regulations enforcements missing. b) Standardized software not provided. c) Absence of feedback & implementation.	5	5	5	To impart training, provide software and institute feedback & implementation (Performance)	i) Same as above ii) All internal issues are interrelated ultimately affecting the performance.
3 Nearly 20 per cent of tests	1. Performance, 2. Knowledge	5	5	25	Training on PUC tests and	Training on all internal



recorded zero values, which is not possible even the new tech. vehicles minimal carbon monoxide CO & HC	(Operator does not understand tests & measurement values). 2. No knowledge of tests				measurements	Issues
4..Legal framework to monitor PUC centres	1.Knowledge 2.Roles & responsibility 3. culture & Values	5	5	25	It is the manager who must have an objective of regulations compliance	Same as above

Audit NC or Study observation	Category of internal Issue responsible (6.2.1.1)	Severity	Likelihood (probability) of occurrence	Risk Score	Opportunity	Remarks
5.Manual recording and non-uniformity in the format of PUC data makes data retrieval and analysis difficult	Feedback is the part of activity i.e performance. Affects quality. Obstructs improvement	5	5	25	If manual feedback then standardize the formate. Provide training on feedback implementation	Same as above
6. lax PUC norms, which rarely fail the vehicles.	1.Performance (Petrol vehicles are tested for CO, HC and lambda, and a smoke opacity test for Diesel vehicles). 2. Capability 3. Knowledge	5	5	25	Institute a) Monitoring and measuring in PUC. b) real time feedback . c) Periodical audit by the management to know the PUC performance. d) Implement qa/qc	Same as above



7.Improper Sensor probe insertion and then taking readings of pollutant measurements	1.Performance: Proper Sensor probe insertion and then taking readings of pollutant measurements 2.Capability 3. Knowledge	5	5	25	This is Critical to quality (CTQ). Institute monitoring & measuring, review, Internal audit & review of performance	Same as above

Audit NC or Study observation	Category of internal Issue responsible (6.2.1.1)	Severity	Likelihood (probability) of occurrence	Risk Score	Opportunity	Remarks
8. CSE's investigation found that emissions testing probes are not even inserted in the exhaust pipe, or it remains unconnected with the computers at the time of testing to show false passes.	1.Performance 2.Knowledge 3.Role & responsibility 4. Cpability	5	5	25	Training on conducting the tests.	1.Same as above (Managerial actions such as QA/QC checks, monitoring & measuring, feedback of PUC actions & applying control, are missing).



9..Ill maintained equipment, lack of documentation on calibration of equipment, poorly done tests, lack of standardized software in testing equipment	1. Performance 2. Knowledge 3. Role & Responsibility 4.Capability	5	5	25	Maintenance schedule of equipment, Cal certificate of eqpt from NABL accredited lab, properly conducting the tests and use of standardized software.	Same as above
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(ii) Study: John Rogers, Grupo Trafalgar, Maxico city, Oct.2002, Washington, D.C : World Bank .Assessment of the pollution under control program in India and recommendations for improvement. Prepared for South Asia Urban Air Quality Management Program. The World Bank.

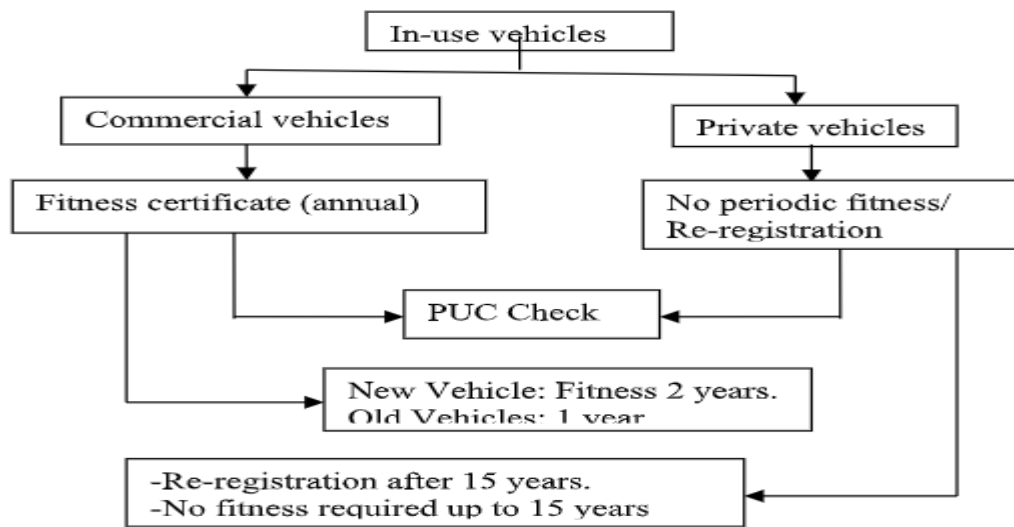
Risk Work sheet 2

Audit NC or Study observation	Category of internal Issue responsible (6.2.1.1)	Severit y	Likelihood (probability) of occurrence	Risk Scor e	Opportunity	Remarks
1. Technician determines the length of each test. Taking the reading of instrument at any time	1.Performance Unaware of equipment stabilization. Quality aspects 2. Knowledge of job 3. Capability	5	5	25	Training on use of emission equipment along the aspect in remarks col.	Needs trg. On internal issues as stated.



2. Free acceleration smoke check on Diesel vehicle, Neither rpm nor engine temp. registered	1.Performance: Unaware of std. practice 2.Knowledge 3.Capability	5	5	25	Training on qa/qc aspects and arrangements of workshops on emission parameter measurements.	Same as above.
3. Calibration of equipment	1.Performance: Unaware of std. practice 2.Knowledge 3.Capability	5	5	25	Same as above	Same as above

Audit NC or Study observation	Category of internal Issue responsible (6.2.1.1)	Severity	Likelihood (probability) of occurrence	Risk Score	Opportunity	Remarks
4.During testing the probe fell out of the exhaust pipe but the operator took the reading Of Smoke density.	Performance: The PUC operator should have taken time to record time till the entrained air in pipe is out & stability ensured. 2.Knowledge 3. Capability 4. Responsibility	5	5	25	Training on measurements aspects.	Needs trg. On internal issues as stated and retraining, if required .
5.Quality assurance and audits not found	1.Performance: QA activities & Periodical audit of PUC required	5	5	25	Training on QA/QC.	Same as stated above.



6.Independent body to analyse the results of emission limits to determine and or recommend changes or to analyse systematic problems.	1. Performance: Supervisory activity to do analysis and identify systematic problems. 2. Knowledge 3. Responsibility	5	5	25	Training on managerial aspects of PUC process so as to put PUC on path of continual improvement.	Same as stated above.
7.No analysis of data collected is done	1. Performance: Data analysis, feedback & Corrective actions. 2. Capability 3. Knowledge	5	5	25	Training on Data analysis, feedback & Corrective actions.	Same as above

Note: Risk score is maximum that is above 9. So it is significant and needs to be dealt.

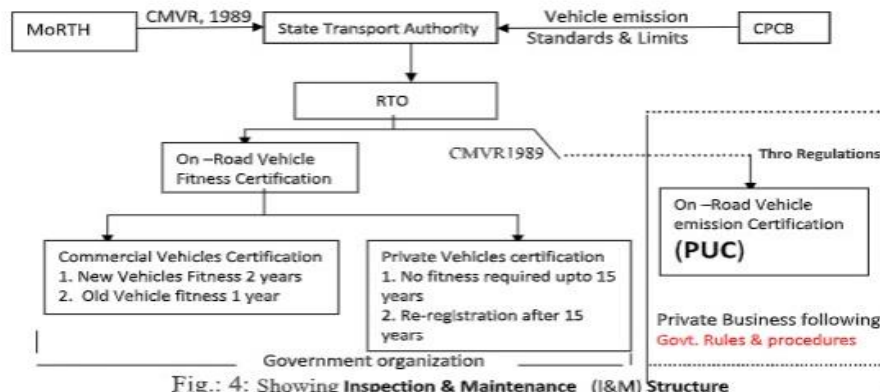


Fig.:3: Showing Existing Inspection & Maintenance System in India (Source: CPCB 2010)

Org structure and complexity of processes

PUC organization structure

I& M Program constitute in-use or on-road vehicle fitness testing and pollution under control (PUC) check. I&M program is managed by Road transport Officer under state Transport Authority. Existing Inspection & Maintenance System in India is shown below Fig.3

The vehicle fitness certification pertains to checks on the safety features such as brakes, lights, general wear and tear etc. The fitness Certification activity is carried out by the motor vehicle inspectorate attached to Regional Transport Offices (RTOs) under State Transport Authority in each State. The reporting lines & authority are not found in the existing PUC org. structure.

The vehicle fitness certification & vehicle emission PUC certification derived from literature review function under RTO in each state as shown in Fig 4 below:

The organization chart of PUC centre is hierarchical, with different levels of management. The reporting lines and authority levels are depicted in it. Pollution under Control (PUC) is a vehicle emission certification system operating in the country. Periodic PUC checks are mandatory for all on-road vehicles. National requirement for PUC checks are twice a year but for some places like Delhi it may be four times a year.

Complexity of processes (PUC Process): The complexity of processes or process can be brought out by flow charting the processes or Process. Through the flow diagram we can understand how the process is working. Flow diagram provides a breakdown of the essential steps to know the complexity of process. In our case of PUC process the flow diagram of the process is shown below: The flow of work activities in PUC centre Process are as under:

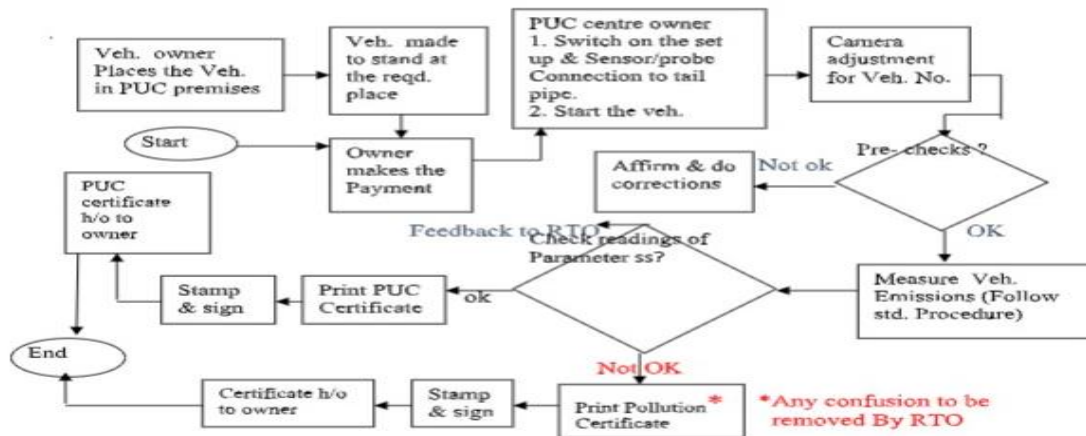


Fig.5: Showing PUC Centre Process Flow chart

Summarizing the Finding

We find that context of PUC business entity brings the issues internal issues in this case, appear at the surface, which can be analysed in a simple way as done above in so called risk worksheets. Risk has come in the forefront because PUC certificate is concerned with vehicular pollutants harmful not only for environment (warming of the planet) but causing acute illnesses and damage to human beings. Risk based thinking brings potential issues at the surface for actions called preventive actions to be planned for execution. Risk score can be used to prioritize the preventive actions and Plan Do Check Act technique (W Shewart in 1920 & promoted by E Deming in 1950) used for implementation.

The example is given in Table -2

Risk work sheet. No	Plan	Do	Check	Act	Status
4 Performance	Training on quality aspects of PUC process/activity. Date planned: 10 Sep 2023 to 13 sep 2023	Training conducted as per plan.	Observe the working in the activity and grade the quality performance.	In case the performance observed is below average, arrange another training	Not satisfactory

Table-2

Similarly the gaps found in analysis in all the risk worksheets can be planned for taking action and implementation.

The opportunity columns and points in Remark column indicate the preventive actions to be taken so as to strengthen the PUC process. In the case of PUC entity, the issues described in worksheets have become problems

Discussions and Recommendations

Discussions: For PUC Operator, his purpose has three levels for him to think and work out. These are:

Ist level: ROI

2nd Level: Needs & Expectations of Interested Parties

3rd Level –Service: Testing & measuring vehicle emissions & certification

ROI: The first purpose is to make profits from the investments made and efforts employed to establish the centre i.e PUC business entity. Obviously he gets affected for his concern of getting returns on his investments (ROI). This is very important and he is required to earn it. Here he requires morally others' examples. Management/owners need to put consistent efforts on establishing required values & culture at the PUC workplace.

The next level is to identify and understand the needs and expectations of its interested parties/stakeholders (most importantly the regulators) that can either affect or be affected by the actions of PUC process. The leaders/Managers/Owners need to evaluate the interested parties or stakeholders and implement accordingly so that PUC certification activity is effective.

The last level comes from the requirement of providing service that is checking and measuring vehicular pollution and issue of right PUC certificate to vehicle owners. PUC certificate is to be issued only when the vehicle emissions are within the specified limits. This level of requirement of providing service is “fitness for purpose” i.e Protecting human safety and the environment. Management is responsible for curbing irresponsible behaviors in PUC process.

Recommendations:

Following are the gaps found after analysis which are given in the risk worksheets described above.

(i) Values: Founder values not visible. Awareness/knowledge training

(ii) Organization Culture: Strong Org culture lacking

(iii) Knowledge: Lack of job knowledge of measurements & workplace knowledge. (Workplace knowledge is important **because** it enables employees to do their jobs effectively.)

(iv) Performance & its measurement: Lacking performance knowledge i.e duties of their roles. No objectives established & roadmap (action plan) to achieve objectives not there. Quality aspects of certification: i) Quality* mistakes not tracked. ii) Feedback to RTO & corrective actions not there. Iii) Institute monitoring & measuring in PUC. Establish qa/qc process.

2. Delivery of wrong certificate if veh. not conforms to std. limits.(Issue of Pass certificate).

Process equipment maintenance schedule are not there.

(v) Capabilities: Skills & knowledge of veh emission certification not there. Constraints in terms of resource like equipment, technology and software etc hampers capability.

(vi) Roles & responsibilities No roles & responsibilities are assigned in PUC.

(vii) (a) Organization structure: Given organization structure does not depict coordination, Reporting lines and interdependent individual functions.



(b) Complexity of Processes: Flow diagram/map of PUC activity or process not provided.

For the above recommendations, the management, decision makers and or owners need to train the employee (s) and place these as practices in PUC centers all over.

Conclusion: The conclusion is very simple as the context of a business plays an important part in the formulation of policy, objectives and procedures required in the planning of the entity, the context that is ‘**operation environments**’ are analysed and considered which makes the business to provide product (in our case **vehicle’s emission certificate**) efficiently and effectively. We must remember that:

At its most basic, ‘**the context of an organisation**’ is an in-depth review of a business entity which entails its structure, strengths and weaknesses, interested parties, and performance expectations. Establishing context is central to creating policies and procedures that return results and drive continual improvement.

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