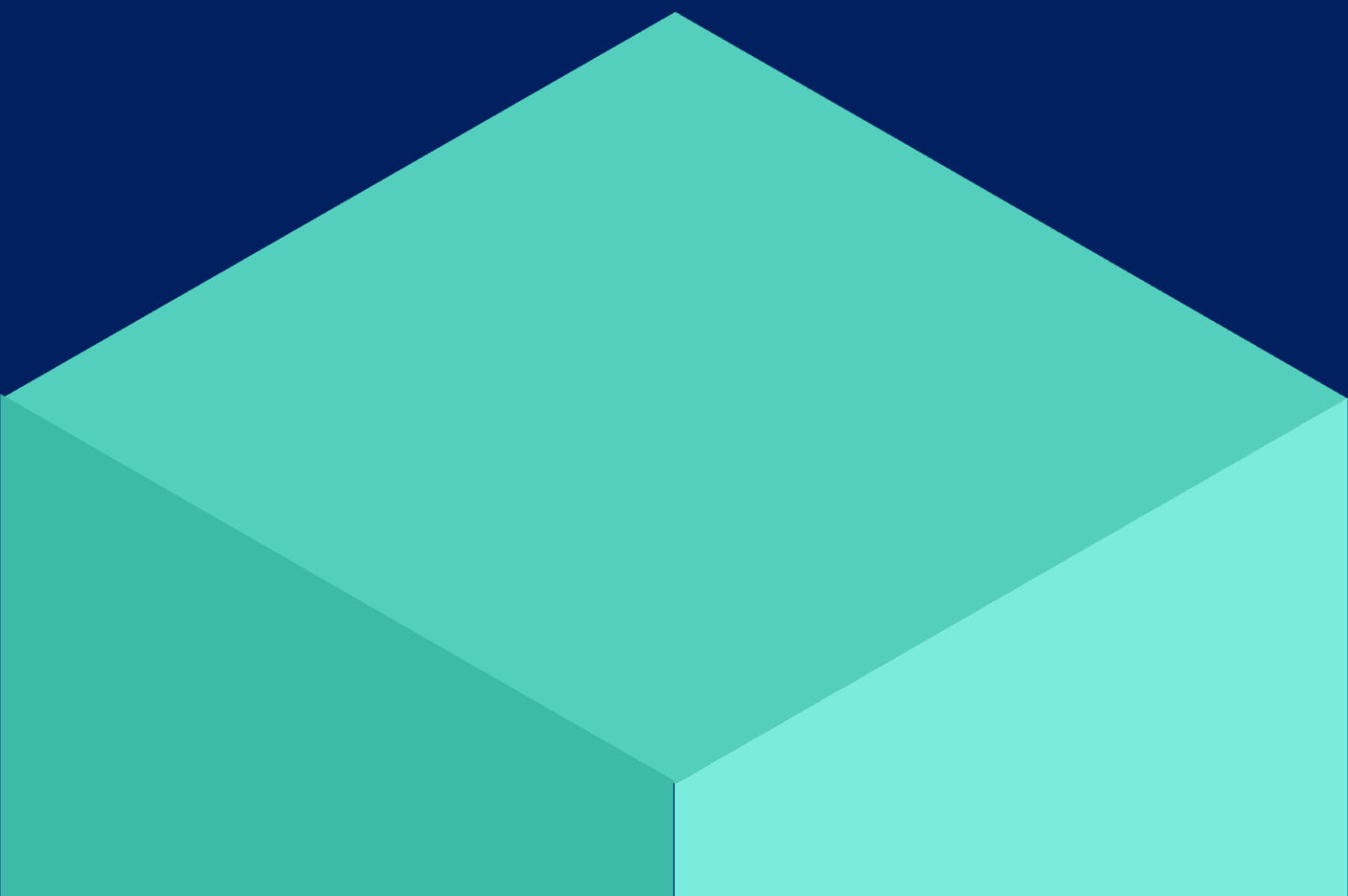
Property Tax Innovation through Digital Technologies (PTID)

Human Centered Design Document





Foreword

This Human-Centered Design discovery and feedback process is part of the Property Tax Innovation through Digital Technologies (PTID) Pilot Project. PTID is an 18-month Pilot funded by SNG II and implemented by CERP and Red Buffer to bring innovation in the existing processes of Excise Taxation and Narcotics Control Department of Government of Punjab (ET&NC).

Property tax is significantly under-utilized tax instrument in Punjab, accounting for only 6% of the total provincial tax. Inefficient Government processes and poor customer service blueprint, has shaken the trust of general public in Government actions. ET&NC department faces several challenges like the under-assessment of properties and poor public service delivery. This results in low property tax collections. There is a strong need to redesign the system in such a way that it creates convenience for the taxpayers and increases operational efficiency for the ET&NC staff.

An increasing number of governments are now using design approaches to innovate and co-create public policy interventions with professionals, the private sector, civil society representatives, third sector organizations and citizens. In design thinking, stakeholders are involved to play a responsible, active and constructive role in shaping decisions. They are no longer considered merely passive receivers at the end of the regulatory, administrative and public service delivery chain.

If implemented well, design thinking approaches help improve decision-making, contributing to a more comprehensive problem definition; reduced risks of duplications, improved public service delivery; minimized unintended consequences, reduce future redesign costs, and more legitimized and effective decisions.

This document talks about the importance of HCD in public sector more specifically in ET&NC Punjab, the methodology employed for the discovery and feedback processes, and the outputs that will eventually feed into the system redesign.

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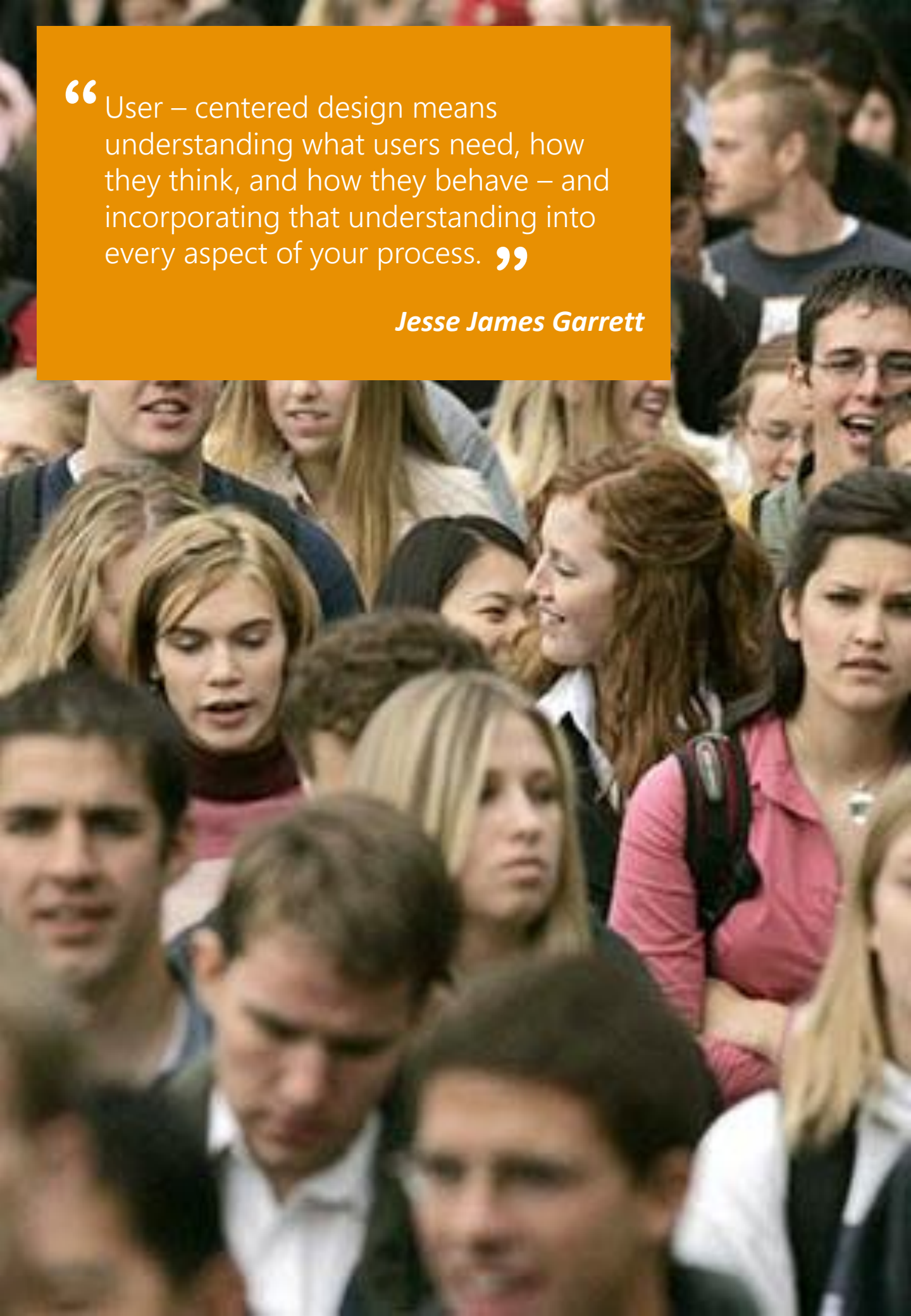
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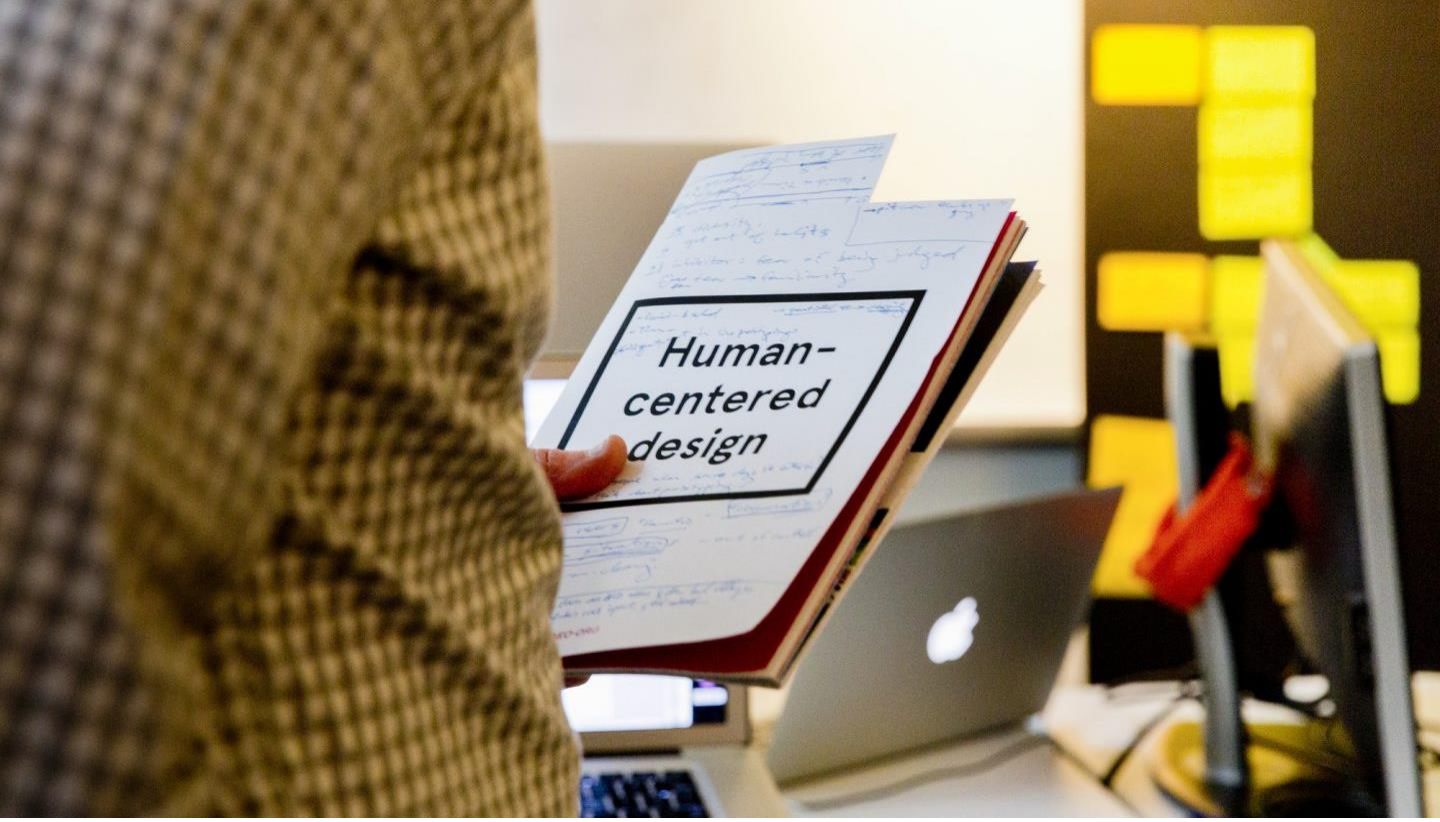
Acknowledgements



> “User – centered design means understanding what users need, how they think, and how they behave – and incorporating that understanding into every aspect of your process.”

Jesse James Garrett

Introduction to human-centered design



What is human-centered design?

Human-centered design (HCD) is an approach to problem-solving that puts the people we are designing for at the heart of the process.

It has been championed by Nobel Prize laureate Herbert Simon, developed and taught by the Stanford University Design School, and used by firms like DC Design to design effective and impactful solutions to challenges that are concentrated with a small group of people and those that are systemic.

What distinguishes Human-Centered Design from other problem-solving approaches is its obsessive focus on understanding the perspective of the person who experiences a problem, their needs, and whether the solution that has been designed for them is truly meeting their needs effectively or not. At its most effective, the very people who experience a problem the most are a constant part of the design process and when possible, become part of the design team itself.[1]

The human-centered design process begins with the empathy for the people we are designing for.

The process:

- generates a wide variety of ideas
- translates some of these ideas into prototypes
- shares these prototypes with the people we're designing for to gather feedback
- builds the chosen solution direction for release

The goal of employing human-centered design in this project is to develop solutions that meet the needs of the Excise Taxation and Narcotics Control Department (ET&NC) and bring efficiency in the public service delivery.

Human-centered design is an iterative practice that makes feedback from the people we're designing for, a critical part of how a solution evolves.[2]

[1] www.medium.com/dc-design/what-is-human-centered-design-6711c09e2779
[2] www.vic.gov.au/designplaybook



Why use Human – Centered Design?

Human-centered design approach aligns government services with the needs and desires of people. Involving end users in the overall design process leads to greater buy-in, uptake and impact.

"People expect government services to be simple and easy to use". Quoted by Canadian Digital Service as part of the feedback for Pakistan Digital Policy.

Human-centered design is even more important in the Government, as Public Service Delivery after all deals with the humans.

Owing to the missing human experience element in the Government services, general public has low expectations from the Government. This dissatisfaction in the general public contributes to low trust levels, which ultimately leads to low tax contribution by the people.

Poor customer service is one of the biggest challenges Government is facing. The same is true for the Excise and Taxation department in Punjab. Designing Public services through HCD Principles will not only improve customer service, but also enhance the efficiency in delivering results.

Benefits for Tax Payers

- Improving policy services and products that helps address the needs of the tax payers.
- Creating convenience for the tax payers in dealing with the E&T department.
- Reducing transactional friction in estimating and calculating tax payments.
- Ease of payment of taxes through smart phone App.
- Transparency on how the property tax process is run, leading to greater trust.
- Availability of tax utilization information in the locality.
- Ease of getting property tax notices and challans through the application.

Benefits for ET&NC

- Building processes to significantly reduce the underassessment of properties.
- Creating a positive reputation and increasing trust in Government.
- Improving reporting, monitoring, efficiency and productivity of E&T field staff.
- Building a system that is intelligent, improves over time and is easily extended in the future.
- Improving the service delivery to the taxpayers and make it easy to pay due taxes.
- Reducing the risk of failed policy or service through HCD validation process.
- Providing a tax payer perspective of the services provided by ET&NC.





Analytical thinking and Design thinking

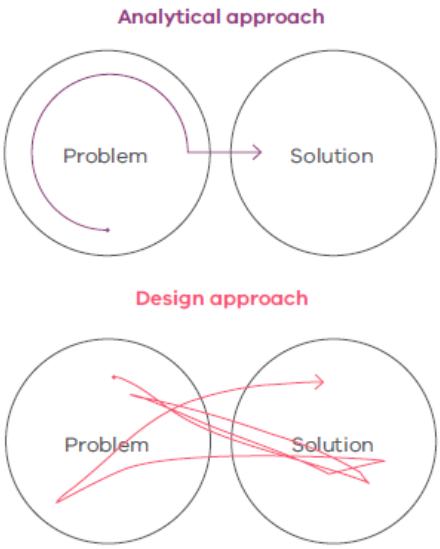
Analytical thinking is step-by-step progression process that requires a heavy investment in the process during the deep analysis of a question, which then effectuate a highly informed answer.

Design thinking is the user centric non-linear approach, where early stage time has been spent on process of discovering the true problem.

Design thinking is not the thing that most of the sectors think of when a problem or a change is required. Most of the sectors run on the concept of analytical thinking. And this has been successful for almost everyone.

But most of these sectors are unaware of the need for design thinking. They find it difficult to digest that there is a whole other aspect of thinking that is different from analytical thinking. Not because they are complacent but just the ignorance and lack of awareness about another type of thinking.[1]

Instead of over- analyzing the problem from an expert mindset or an institutional understanding, the human-centered design process encourages to hold a learning mindset and understand a citizen's experience. It focuses on quickly and cheaply testing hunches and observes how the stakeholders react to the ideas and how the ideas fit the context. The intent is to allow the true problem to reveal itself.



[1] *www.picassowrites.blogspot.com/2019/02/design-thinking-vs-analytical-thinking.html*



The Need for HCD in Excise Taxation & Narcotics Control Dept

Pakistan faces important policy challenges in improving service delivery, growth and development. Low levels of tax revenue act as a serious constraint to economic growth, provision of services and, more generally, to building an effective state. Pakistan does poorly on revenue collection, even when compared to other developing countries.[1]

Similarly, Property tax is significantly under-utilized tax instrument in Punjab, accounting for only 6% of the total provincial tax. With a population of over 100 million, Punjab collects less property tax than the city of Chennai India, home to about 10 Mn people. Punjab's cities have significant service delivery deficits. For example, only 35% of urban households in Punjab have piped water. These deficits will worsen in the absence of local financing that can be used to make public investments. Fixing this persistent service shortfall requires various systematic reforms, including raising more revenue to pay for public investment — land and property taxes provide a potentially significant revenue source to this end.

Punjab is in an excellent position to capture the gains from urbanization. Between 1998 and 2017, Punjab's five largest cities, all with a population of more than a million people, grew their population by 60%. This has been accompanied by an increase in land and property value likely through increased investment in real estate. Improving property taxation system can play an instrumental role in financing Punjab's cities, and by extension, Pakistan's urban transition.[2]

The Excise and Taxation Department in Punjab face several challenges that need to be addressed:

- Under assessment of properties;
- There is no robust reporting and monitoring mechanism;
- There is a need to strengthen public service delivery
- Property detection needs to be digitized.

Design thinking has immense importance for a public sector department like ET&NC. Since the department provides the revenue for the country, slight improvements in operational efficiencies bring huge financial impact. As discussed earlier in this document that ET&NC face several challenges related to assessment of properties, reporting and monitoring mechanism and public service delivery, it is important to transform the existing system design with the help of HCD so that the tax collections can be increased.

Although the existing property tax management system is well-designed and is serving its intended purpose, however, user convenience is compromised, because of missing human element in the design process.

This document presents design thinking methodology that we have adopted to transform the basic property tax management systems.

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1 Khan, A, Khwaja, A and Olken, B, 2016. Property tax experiment in Pakistan: incentivizing tax collection and improving performance, 3ie Impact Evaluation Report 45. New Delhi: International Initiative for Impact Evaluation (3ie) 2 Wani, S., Shaikh, H., and Harman, O. (2020) 'Urban Property Taxes in Pakistan's Punjab,' International Growth Centre (IGC).

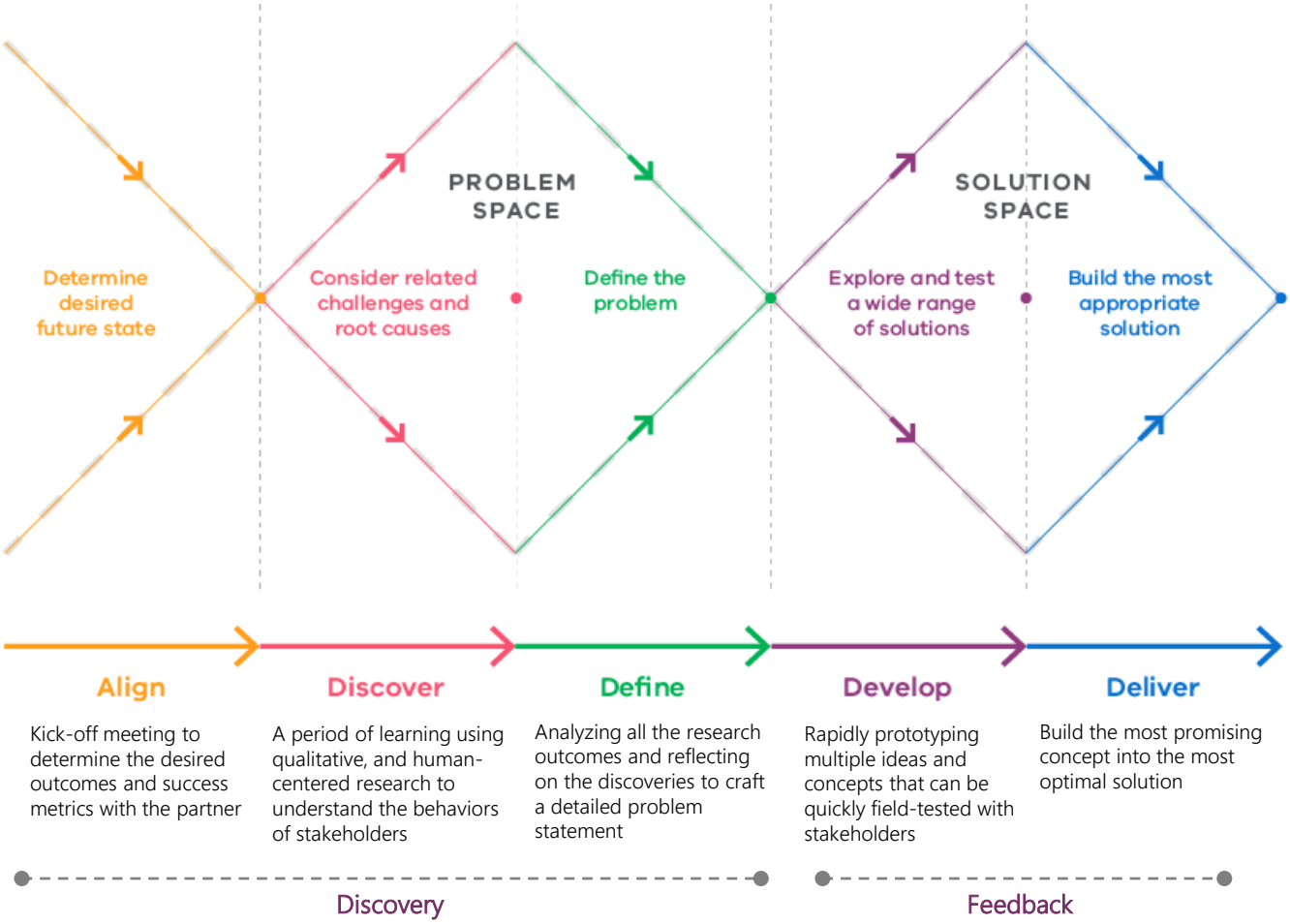


> “Human-centered design is changing the most lives in the developing world. Meeting people where they are and really taking their needs and feedbacks into account. When you let people participate in the design process, you find that they often have ingenious ideas about what would really help them. And its not a onetime thing; its an iterative process.”
>
> ***Melinda Gates***

Methodology

HCD process and methods adopted for discovery and feedback for the development of solutions.

Human – Centered Design Process



Quarter 1	Quarter 2	Quarter 2	Quarter 3	Quarter 4
Methods				
• Meetings with ET&NC management • Focus groups • Meetings with field staff	• Stakeholder interviews • Contextual inquiry • Taxpayer survey	• 2 mini HCD workshops • 2 full HCD workshops • Initial UX / UI design • Output framework	• Prototyping • Individual feedback sessions • HCD feedback workshop • App redesign	• Updating UX / UI design • Finalizing field app, dashboard and taxpayer app
Outputs				
• Initial scope document • User findings report	• Interim design review report	• Value proposition • Activity mapping • User journeys • Design challenge • Idea evaluation • Service design concept (UX /UI design)	• Working prototype • Feedback report	• Final applications

Human – Centered Design Discovery

User Research
HCD Workshops
UX / UI Designs
Output Frameworks

We adopted these 4 methods for HCD Discovery:

1 User research

1.1 Stakeholders Interviews[1]

Establish a project's background, constraints and goals and build rapport with decision makers.

PURPOSE

- To understand project constraints, business objectives and delivery priorities.
- To build rapport with key stakeholders.
- To document assumptions, opinions and priorities for the project.
- To gain alignment between different stakeholder groups.
- To address misalignment early in the project.

Outcome

- An understanding of why the project has been initiated.
- Documented constraints and goals, according to key stakeholders.
- Early understanding of anticipated project challenges or barriers.

Strengths

- Hearing about project priorities and motivations in the stakeholder's own words.
- Key decision makers are engaged early in the project.
- Helps with identifying and addressing any misalignment in project expectations early on.

Weaknesses

- Misalignments can be identified but are difficult to resolve in interviews.
- Project delays may occur if stakeholder groups are large.
- It can be difficult to access or get the time of senior stakeholders.

Several interviews were conducted in April, May and June 2021 with the Tax Inspectors and ETOs to understand the routines and challenges that can be addressed through our solution.

[1] www.vic.gov.au/designplaybook

Human – Centered Design Discovery

User Research
HCD Workshops
UX / UI Designs
Output Frameworks

We adopted these 4 methods for HCD Discovery:

1 User research

1.2 Contextual Inquiry[1]

Contextual inquiry is a semi-structured interview method. Participants are observed and interviewed in their natural environment.

PURPOSE

- To gather information about behavior. Behavior is often difficult for participants to truthfully describe in a lab-based interviews.
- To put participants at ease. Being in the right environment can also help them mentally for the interview.
- To collect information about the environment and context of use.

Outcome

- Rich qualitative data about real behaviors and use.
- Photographs and rich documentation of the environment or behaviors you are studying.
- Insight to things people don't talk about when using a product or service.

Strengths

- Great at investigating the processes and sequences that make up our behaviors.
- Great for discovery.
- Good for creating safe spaces.

Visited Excise and taxation offices several times in Lahore and Bahawalpur to observe the routine of Tax Inspectors and ETOs.

Weaknesses

- Requires a lot of skill, and so is not a method for inexperienced researchers.
- Researchers need to be equipped for potentially difficult environments or subject matter.
- Time consuming and often requires travel.

[1] *www.vic.gov.au/designplaybook*

Human – Centered Design Discovery

User Research
HCD Workshops
UX / UI Designs
Output Frameworks

We adopted these 4 methods for HCD Discovery:

1 User research

1.3 Survey[1]

A tool that gathers comparative data from medium to large numbers of participants.

PURPOSE

- To understand the behaviors, needs or perceptions of a large cross-section of people.
- To generate comparative qualitative and quantitative data sets.
- To gather initial data to inform the design or focus of other research activities.

Outcome

Qualitative or quantitative data that can be compared across demographics or communities.

We conducted a taxpayer user survey:

- To get feedback on a proposed taxpayer mobile
- Discover the willingness of taxpayers in using the taxpayer app
- To explore the taxpayers experience with the Punjab Property Tax System.

Instrument:
Survey form to be shared online and printed copies shared physically
In-depth Interview guide for telephonic / online / in-person interviews

Participant Selection:
People whose owned property is registered with ET&NC and the PT1 is issued

Sample size:
Surveys: 50
Interviews: 10

Strengths

- Describes the what of a situation or phenomena.
- A fast way of gaining an 'birds-eye view' of a situation or topic.
- Builds comparable data sets over time, allowing researchers to track changes.

Weaknesses

- Needs careful attention to its design in order not to bias answers.
- Unlike an interview setting, researchers are unable to probe participants' responses.
- May not provide insight into why a phenomena occurs.
- Generalizes insights, sometimes missing important details around experience and opinion.

[1] www.vic.gov.au/designplaybook

Human – Centered Design Discovery

User Research
HCD Workshops
UX / UI Designs
Output Frameworks

We adopted these 4 methods for HCD Discovery:

2 HCD Workshops

A collaborative workshop to help groups of people work with research insights. The aim is to draw out a broad range of potential solutions.[1]

PURPOSE

- To bring stakeholders together to explore potential solutions.
- To 'go wide' on the potential solutions.
- To understand what constraints exist around solutions.

Outcome

A set of solution ideas for further synthesis and validation.

Strengths

- Effective for getting a diverse group across the implications of research findings.
- Easy way of documenting a set of ideas from a diverse group.
- Effective way of eliciting solution constraints (based on collective feedback of ideas).

Weaknesses

- Participants need to understand the project context and prior project. activities. The workshop risks being ineffective if they do not.
- Success depends on participant mindsets. The need to be able to put aside 'realities' of implementation for blue-sky thinking.

HCD Workshops in April

- 2 mini HCD workshops were conducted in April. 1 in Bahawalpur and 1 in Lahore Region B Office.
- In both mini workshops Directors, ETOs and Tax Inspectors were part of the meeting.

HCD Workshops in June

- 2 full HCD workshops were conducted in June in CERP Office in Lahore.
- 1st full workshop was conducted with Tax Inspectors and 2nd was conducted with the ETOs.

[1] www.vic.gov.au/designplaybook

Human – Centered Design Discovery

We adopted these 4 methods for HCD Discovery:

- User Research
- HCD Workshops
- UX / UI Designs
- Output Frameworks

2 HCD Workshops

2.1 HCD Workshop 1 conducted on 12th June, 2021 at CERP



Human – Centered Design Discovery

User Research
HCD Workshops
UX / UI Designs
Output Frameworks

We adopted these 4 methods for HCD Discovery:

2 HCD Workshops

2.2 HCD Workshop 2 conducted on 19th June, 2021 at CERP



Human – Centered Design Discovery

We adopted these 4 methods for HCD Discovery:

User Research
HCD Workshops
UX / UI Designs
Output Frameworks

3 UX / UI Design

UI is the graphical layout of any application as it shows what the app is going to look like. UX shows how the user is going to interact with the UI of an app.

PURPOSE

- To improve the user experience and customer satisfaction.
- To provide easy navigation no matter which search engine they are using..
- To understand needs of user and design app accordingly.

Outcome

To help in prototyping and application development.

On the basis of HCD workshops conducted our wireframes were developed. Once the wireframes were done we have started working on UI and UX of application which will then be tested by users in the HCD feedback process.



Requirements:
- Email address input
- Password
- Forgot password link
- E&T logo

Optional
- Login with google, facebook, etc?

Human – Centered Design Discovery

User Research
HCD Workshops
UX / UI Designs
Output Frameworks

We adopted these 4 methods for HCD Discovery:

4 Output Frameworks

4.1 Value Proposition	Value proposition tells user number one reason why the product or service is best suited for that particular user.
4.2 Activity Mapping	An activity map is a diagnostic tool to identify your organizations competitive advantage. It connects your organization's value proposition to the activities of your organization that enable you to deliver this value proposition better than any competitors.
4.3 User journey	User journey shows that what are the user's experience when interacts with existing products or services. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity
4.4 Design Challenge	A design challenge articulates the problem you are trying to solve, and helps you define a scope that is neither too narrow nor too broad.
4.5 Idea Evaluation	Idea evaluation is the process that helps an organization to screen and rank each ideas feasibility and the level of impact.
4.6 Service Concept	The service concept defines the how and the what of service design, and helps mediate between customer needs and an organization's strategic intent
4.7 Service Blueprint	Service blueprint is a design of a map that visualize the services offered accurately.



Human – Centered Design Feedback

Process to be done in quarter 3 and 4

1 App Prototyping	Before the development of the Field App and Dashboard, we will create a prototype for testing.
2 Individual Feedback Sessions	Individual feedback sessions will be conducted. We will give application to the end users (Tax Inspectors and ETOs) to actually use the application and give us feedback.
3 HCD Feedback Workshops	One feedback workshop will be conducted with Tax Inspectors and ETOs to get the real time feedback on the development of the application.
4 App Workflow Redesign	Based on the feedback provided by the end users, we will redefine or improve the App workflows.
5 Updating UI / UX Design	UX / UI and the wireframe of the application will be refined according to the feedback





> “The whole point of Human – centered Design is to tame complexity, to run what would appear to be a complicated tool into one that fits the task, that is understandable, usable and enjoyable.”
>
> ***Donald A. Norman***

Outputs

Discovery process: Activity mapping, user journeys, service design concepts and blueprints

Human-centered design Discovery Outputs

Human-centered design discovery process is the process of identifying end-user groups and mapping their activities in such a way that discovered design challenges can be solved for user needs and benefits.

These solutions can then be combined into service design concepts and blueprints to develop user friendly touch points and features for end users.

VALUE PROPOSITION
Define Value Proposition based on the initial information gathered through In-depth Interviews and further refine it.

USER GROUP PROFILES
Identify your key User Group Profiles and document their needs and desires.

END USER ACTIVITIES
Identify End User Activities for HCD discovery process which are mutually exclusive and collectively exhaustive.

USER JOURNEYS
Document User Journeys to understand user routines and challenges.

DESIGN CHALLANGES
Develop Design Challenges to solve for user needs and benefits.

IDEA EVALUATION
Brainstorm Solutions with end users to prioritize on the basis of feasibility and impact.

SERVICE DESIGN CONCEPTS
Combine ideas to create Service Design Concepts with multiple user-facing features.

SERVICE DESIGN BLUEPRINT
Build concepts into Service Design Blueprints and define touchpoints and features for users..

Value Proposition



A value proposition is a value stated by a company that summarizes how the benefit of the service will be delivered, experienced, and acquired. Essentially, a value proposition specifies what makes the service attractive, why a end-user should use it, and how the value of the product or service is differentiated from similar offerings.

FOR

Excise, Taxation and Narcotics Control Department (ET&NC).

WHO

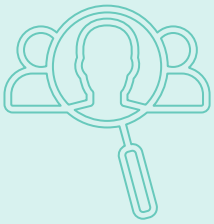
- Field visits of ET&NC staff are unplanned with no technical support, which leads to inefficient property detection, tax collection and Field Management etc.
- Taxpayer's interaction with the department is inconvenient due to lack of digital support.

WE OFFER

- With the help of 4 different applications, we will support the Field activities of the Excise and Taxation Department.
- We plan to develop a Field App, Property detection and management module, a dashboard and a Taxpayer App.

SO THAT

- New properties can be easily identified and included in the tax net through ML
- Tax inspector's daily office and field routines can be planned & optimized
- Taxpayers can conveniently coordinate with TIs and receive notices through Taxpayer App.



End User Group Profiles

List the end user groups you developed and refine them here to include as much information as possible about their common characteristics

Tax Inspector

Tax Inspector is the head of the circle that has almost 3,000 taxable units.

His main role is to:

- Ensure tax collection
- Identify new properties to bring in tax net
- Interact with Taxpayers
- Deliver notices
- Field Data collection

Excise & Taxation Officer (ETO)

ETO is the head of the zone that has almost 20K to 30K taxable units

His main role is to:

- Assess the property
- Approve property details in the dashboard
- Handle objections
- Performance manage Tax Inspectors

End User Group Needs

List the end user groups you developed and include as much information as possible about their needs and desires.

Excise & Taxation Officer Needs

- To see newly detected properties in zone on the map.
- To run the property detection search on his selected location.
- A dashboard that periodically detects properties and notifies him.
- To see the properties that have and have not paid taxes, as a list and on Map.
- To see the circle wise tax collection status on the map and sort the information on date and pending taxes
- To see the objections received by the taxpayers.
- To assign property visits on a specific location to the tax inspectors and see that as a list and on map.
- To see which new properties were visited / not visited by his Tax Inspectors.
- To see the list of all TIs and the properties assigned to them for visit.
- To generate and download TI's performance Report.
- To see the performance of TIs on various metrics like properties visited, changes in properties identified etc.

Tax Inspector Needs

- To see the list of properties assigned by ETO for visit.
- Technological support in the field visits as well as in daily routines.
- To see his own visit history.
- A mobile app to record property related information.
- To capture the images of the property and geotag for future visits.
- To see the list of owners who have missing PT4 info.
- To do correspondence with the tax payers through a Taxpayer App.

Activity Mapping

It is important to map all the activities which are mutually exclusive and collectively exhaustive.

End user Activities

All activities are mapped against 5 Discovery Outputs


Tax Inspector – New property information in UIPT


Tax Inspector – Change in property in UIPT Dashboard


Tax Inspector – Field visit for tax collection


Tax Inspector – Field visit for tax payer correspondence


Tax Inspector – Field visit for property detection


Tax Inspector – Office routine


Tax Inspector – Day planning and task assignment


ETO– Managing Tax Inspector's performance


ETO – Managing zone/ Decision making


ETO – Approving new property or change in property info

1	2	3	4	5
User Journey	Design Challenge	Idea Evaluation	Service design concept	Service design blueprint
Discovering daily activity routines, actions and challenges	How can we change the routines so that user gets benefits	Evaluating ideas on feasibility and impact	Describing service design, features and benefits	Documenting how end users interact wit the application



Field visit for new property detection

End User: Tax Inspector (TI)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
Taking out time for Field visit • Usually TI first comes to office • He deals with public and resolve issues • Performs any tasks assigned by ETO • If free, TI asks ETO for field visit	• Public dealing at office takes a lot of time of TI and he sometimes do not find time for new property detection • No weekly or monthly plans
Deciding on Area • Once TI finds time for field visit, he then decides on which area to visit • He looks into his diary to see which areas he haven't visited for a while	• There is no technological support in deciding which area to visit i.e. no report past visits, or auto property detection • Un-planned visits
Reaching the Area • Once TI decides on which area to visit, he then picks his own bike to reach the area • On his way he might stops for tax collection follow-up	• There is transport support to Tis • Sometimes owing to long distances it takes a lot of time to reach the area • Harsh weathers are tough for field visit
Discovering new Properties • TI himself visits complete area to see if there is any new development • TI asks property dealer or does local search to identify new properties	• Difficult to physically visit complete area for new properties • No technical support / maps to mark visited areas
Recording the Information • If TI finds a new property or any changes in the property, he then notes down the details on paper • TI fills the derails on UIPT dashboard	• TI uses pen paper to record the information in the field • TI cannot take pics of the property and cannot geotag

Field visit for new property detection

End User: Tax Inspector (TI)

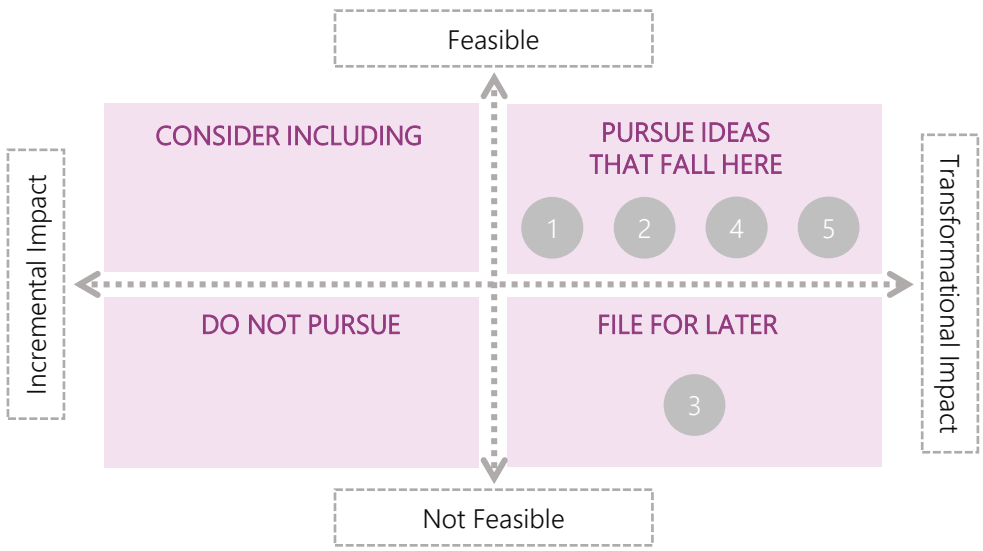
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
Tax inspectors plan their day and spare time to go on field visit for new property detection	1	He experience a well-planned day and they have sufficient time for new property detection
Tax inspectors decide on which areas to visit for property detection	2	He can get some technological support in deciding on areas to visit for
Tax inspectors reach the target areas for property detection	3	He can easily and conveniently reach the target areas for property detection
Tax inspectors discover new properties in an area	4	He can easily discover new properties in a efficient manner
Tax inspectors record the information collected from the property owner / occupant	5	He can digitally record the property information

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Field visit for new property detection

End User: Tax Inspector (TI)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

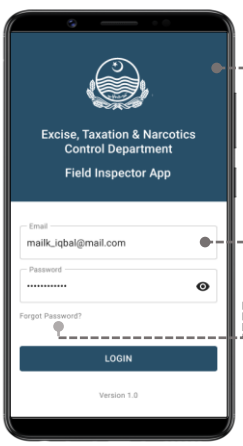
Development of a Field Application for Tax Inspectors which will help in new property detection.

The Features

- Tax Inspector login
- List view of registered, assigned and detected properties
- Property detection Module
- Map view of the detected properties and property details

The Benefits

- TI can view new properties in his circle detected by ML
- TI can collect field data
- User-friendly interface
- TI can visit surrounding properties



Landing Page
Landing page for the Tan Inspector field app

Tax inspector Login
Tax Inspector will be able to login to app once ETO adds him from Dashboard

Forgot Password
If TI forgets password, he will receive temporary password to renew it



All
List of all those properties which are registered and included in UIPT Dashboard

Assigned
Those properties which have been assigned by the ETO or newly detected by the ML model

ML Detected
Properties which have been detected by ML model

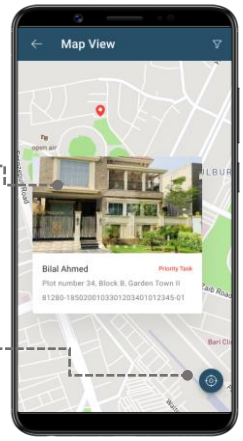
Owner Name
ML detected properties which has the coordinates but other details need to be filed by TI

Add Property
TI can add new property which is not being detected or not registered



Property detection module
ML model will automatically detect new properties in a circle and assign them to the TI

Property polygon
Each polygon represents the property detected by ML model in that circle rating area



Map view
Once the TI collects the data of the new property, property details get visible on map

Surrounding properties
Through this feature system can detect surrounding properties of the current location of the TI and assign



Field visit for Tax Collection

End User: Tax Inspector (TI)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
View List • When TIs plan for tax collection visit they first generate 2 kinds of lists • List of owners who haven't paid tax in current year and the arrears list	• There are system related issues. • There is no filter for paid and un-paid bills, which is inconvenience • Receipts are not added automatically
Generate Bill • Once the list is finalized and printed, Tax Inspectors Generate Bills • These bills are then given to taxpayers when they reach the property	• There is no auto-generation of the bills. • TI have to request Urban Unit • No combined bills • There are amount issues on PT10
Prioritize areas for visit • Once the PT10 are printed, Tax Inspector prioritizes the areas for visit • TI prioritizes the areas on the basis of convenience and large collection amounts	• The human element in the decision making might miss some important areas to visit • There is no technological support i.e. no maps to view details
Give PT10 to the tax payers • TI prefers to deliver notices by hand • If taxpayer does not show up then he gives notice to the neighbors or leave it inside gate or paste it on wall • Large notices are dealt by ETO	• Usually taxpayers do not receive the notices which is a challenge • Some taxpayers misbehave with the TI when he follows up for payment
Coercive measures • Those who do not pay taxes in the 1st 6 months are followed-up for coercive measures • ETO issues PT20 for property sealing • Coercive measure may include arrest	• Seal of property is needed but as per court order TI cannot do it • Difficult to implement the coercive measures, as some people are very influential

Field visit for Tax Collection

End User: Tax Inspector (TI)

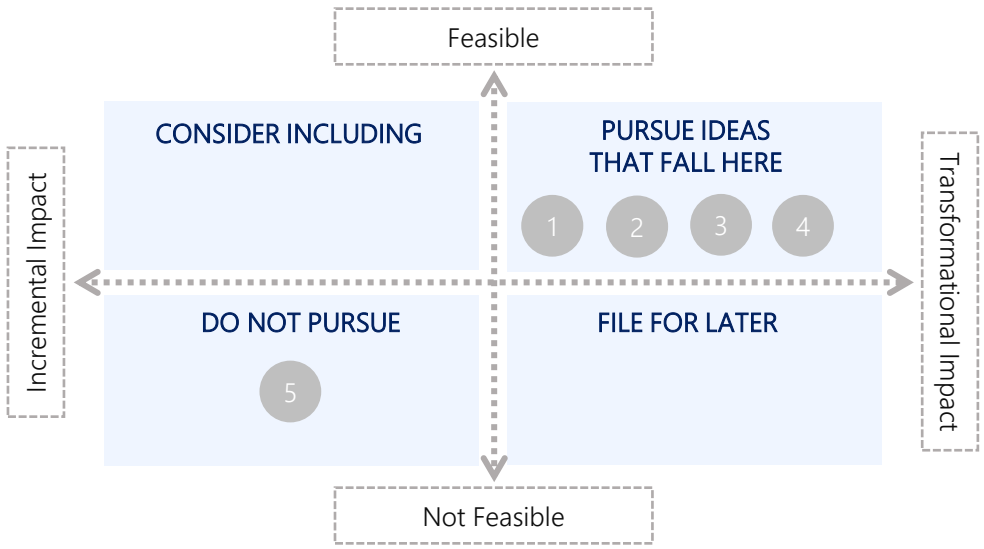
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
Tax inspectors generate the lists for the tax collection visits	1	He can easily access the correct information for tax collection
Tax inspectors generate PT10 bills to be delivered to the taxpayers	2	He can conveniently and quickly generate any PT10 which has accurate tax information
Tax inspectors prioritize areas / location in his circle for tax collection	3	He can easily identify and prioritize areas for tax collection on the basis of pending amounts
Tax inspectors deliver PT10 notices to the property owners for tax collection	4	He can easily deliver notices to taxpayers in low cost and no hassle
Tax inspectors take coercive actions to collect tax from the defaulters	5	He can easily implement coercive measures and meet his tax collection targets

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Field visit for Tax Collection

End User: Tax Inspector (TI)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

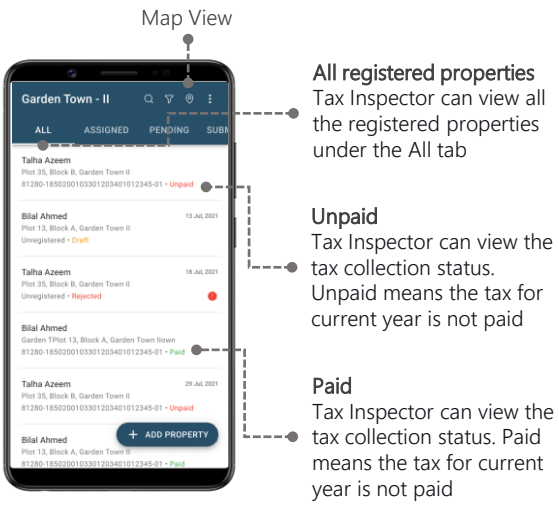
Development of a Field Application for Tax Inspectors which will help in tax collection

The Features

- List view of tax collection status of properties
- Map view of tax collection status – green / red polygons

The Benefits

- Efficiency in tax collection as TI can see the status on map
- Easy access to tax collection information / status



All registered properties
Tax Inspector can view all the registered properties under the All tab

Unpaid
Tax Inspector can view the tax collection status. Unpaid means the tax for current year is not paid

Paid
Tax Inspector can view the tax collection status. Paid means the tax for current year is not paid

Map for Tax Collection
This map will show the tax collection status of the properties in the circle

Map for property detection
This map will show the new properties detected by ML

All registered properties
This is the map view of all the properties registered with the UIPT dashboard





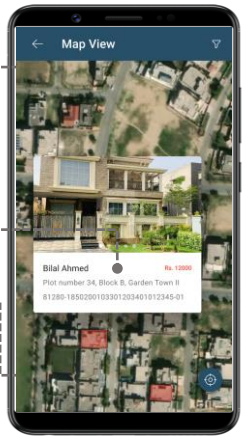
Green polygons
These green polygons show that the property owner has paid tax for the current fiscal year

Red Polygons
These red polygons show that the property owner has not paid tax for the current fiscal year

Property pictures
Tax inspector can view property details of any polygon. This shows an image

Property details
Tax Inspector can view the property details including the owner name, PIN number and address

Pending tax amount
Tax inspector can also view the pending tax amount in the property details shown on the map





Field visit for Tax Payer Correspondence

End User: Tax Inspector (TI)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
PT 1 Correspondence • The first step of tax payer registration is PT1 property document • Once the PT1 is issued, it has to be shared with the owner • Owner can get it physically or online	• Most taxpayers don't even know about PT1 • Taxpayers have to visit tax office to get a copy of PT1 • Delivering PT1 is not in practice
PT 13 Correspondence • Once the PT13 is issued, constable has to deliver it to the owner • PT13 is issued manually or through dashboard • Sale PT13 is shared with both parties	• Sometimes PT13 is not delivered to the owners • If PT13 is not delivered then it creates more burden of appeals
Small Bill PT 10 Correspondence • During the 1st 3 months of the year, constable delivers all small bills (less than 100k) to the owners • 90% of billing is done by constable	• Physical delivery is costly and time consuming • PT10 printing has a lot of issues • No maps to check which areas to prioritize for billing
Large Bill PT 10 Correspondence • During the 1st 3 months TI prioritize large bills (100K-500k) for notices • Not enough personal follow-up is done during the 1st 6 months	• Some people lie about bill receiving • No system for bills to be shared online with owners • Physical delivery consumes a lot of time and cost
PT 10 during last 6 months • Large bills above 500k are usually dealt by ETOs • In-person visits by TI and ETO start in the last 6 months to meet the yearly targets	• Influential people do not pay tax and threat TIs • There is no legal wing to deal with litigation • Coercive actions are not easy to execute

Field visit for Tax Payer Correspondence

End User: Tax Inspector (TI)

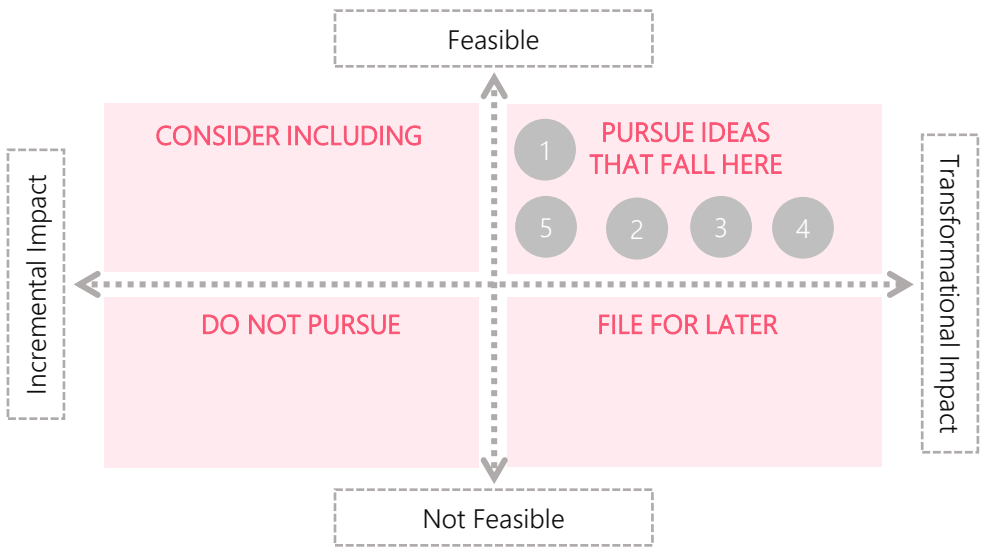
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
Tax inspectors generate and share PT1 with the taxpayers	1	All PT1s are shared with the tax payers in a convenient manner
Tax inspectors generate and share PT13 with the taxpayers	2	Every PT13 is shared with the tax payers in a convenient manner.
Tax inspectors generate and share PT10 small bills with the taxpayers	3	Every PT10 is delivered by the constable to the owner physically
Tax inspectors generate and share PT10 large bills with the taxpayers	4	Every PT10 is delivered to the owner physically as well as through online means
Tax inspectors generate and share PT10 during the last 6 months and take coercive action	5	The tax collection targets are met for the fiscal year

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Field visit for Tax Payer Correspondence

End User: Tax Inspector (TI)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

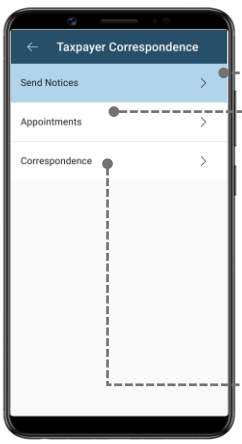
Development of a taxpayer app where TI will send notices through the Field Application

The Features

- Taxpayer correspondence tabs to send notices to taxpayers i.e. PT1, PT10 and PT13

The Benefits

- TI can easily send the notices to the taxpayer
- Taxpayers can conveniently access notices through App



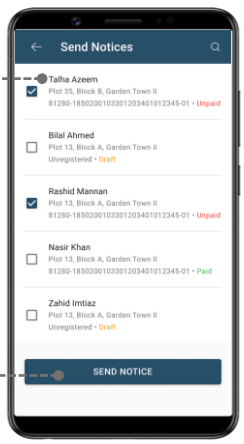
Taxpayer Correspondence
From main screen, Tax Inspector can open Taxpayer Correspondence, that has 3 tabs

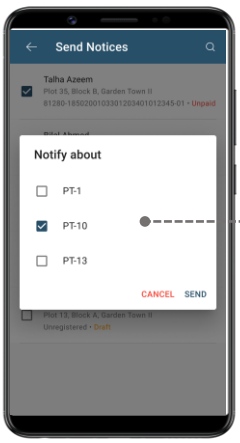
Send Notices
Tax inspector cans end notices to the taxpayers on this their taxpayer app

Correspondence
Through this window tax inspectors can have direct correspondence with the tax payers

List of properties for notice
Once tax inspector clicks the send notices, he can see the list of properties to send notices. TI can also view the payment status

Send Notice
Once the Tax Inspector clicks send notice, it opens up a list of notices to be sent





Select and send Notices
Tax inspector can select the notices to be sent to the taxpayers on their application. Tax Inspector can send PT1, PT13 and PT10 to the taxpayers

PT10 Form
Before sending the PT10 form the tax inspector can view the form and check the details

Tax calculations details
The digital version of the PT10 form contains the property particulars on the basis of which the GARV is calculated

Pending tax amount
Digital PT10 form will contain the GARV as well as tax amount to be paid





Office Routine

End User: Tax Inspector (TI)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
Office Arrival • Although every Tax Inspector follow a different routine but there are some commonalities • Usually TIs reach office before 9 am • First thing they do is to set the desk	• Non-conducive office environment • Internet connectivity issues • Low salaries • No proper seating arrangements for Tax Inspectors
Public Dealing • Public dealing consumes most of the time of Tax Inspector • Public dealing starts at around 10 am • Taxpayers usually come for notices / property assessment issues etc.	• There is no proper seating for public • As there is no appointment booking system, so taxpayers have to wait for hours to get TI's time
Public Dealing and UIPT usage • Most public dealing involves printing of notices (PT1, PT13 & PT10), changes in property details • Upon request TI makes changes in UIPT dashboard	• IT system issues lead to wastage of time for both • PT10 printing issue consumes most public dealing time • Taxpayers unaware of online notices
Tasks assigned by ETO or Head Office • Tax inspectors are assigned tasks by ETO on daily basis • These include dealing with appeal, objections, reports etc • Visiting any specific area for tax collect	• Usually the tasks assigned by the ETO are adhoc and there is no plan • There is no technical support in managing office routine
Leaving Office for Field visit • 60% of the TI time is spent in the field • During TI's absence in office, no one does the public dealing of his circle • Usually the visit is for tax collection	• There is no medium for taxpayer to communicate with Tax Inspector, other than in person • If Tax inspector is not in office then taxpayer cannot get his issues resolved

Office Routine

End User: Tax Inspector (TI)

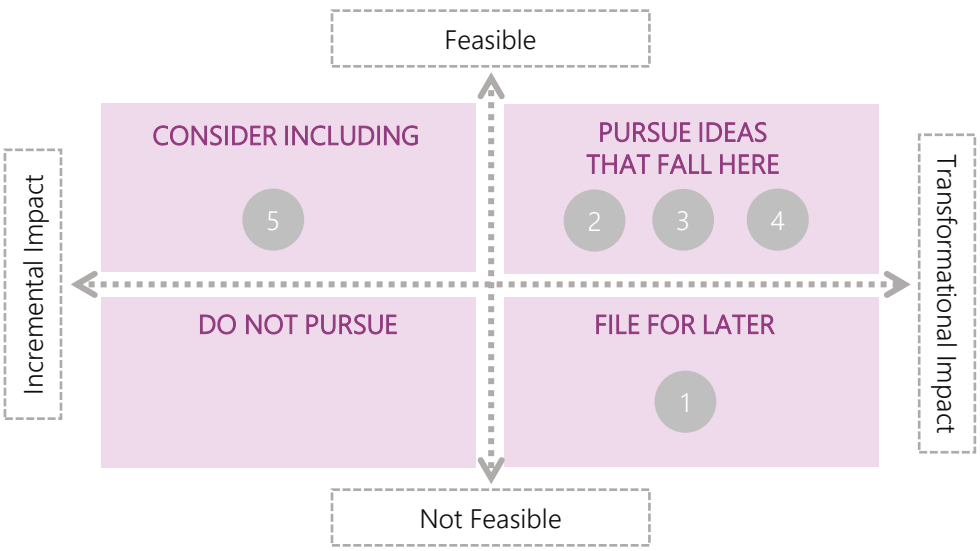
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
Tax inspector can manage his office setup, environment and infrastructure	1	He can have a very conducive work environment and good working conditions
Tax inspectors deal with the public	2	He can perform his duties efficiently and effectively, while satisfying customers in office
Tax inspectors resolve the customer issues through UIPT dashboard	3	The customer issues are resolved efficiently & public dealing time at office can be reduced
Tax inspectors deal with the tasks assigned by the ETO or the Head Office	4	The tasks can be completed on time and are tracked for performance management
Tax inspectors manage their absence from the office	5	Customer dealing is not affected in the absence of Tax Inspector

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Office Routine

End User: Tax Inspector (TI)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

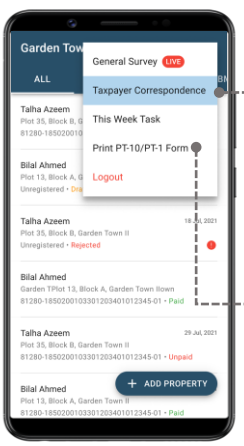
Development of a the field app which will be connected to the taxpayer app for appointments

The Features

- Appointment booking by the taxpayer
- Printing of PT10 through the Field App

The Benefits

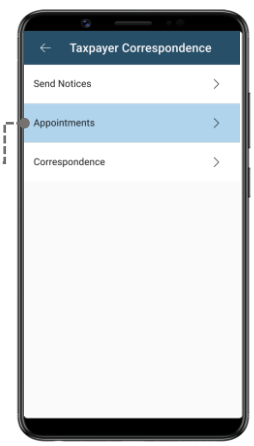
- Taxpayers can book appointments with TIs
- Tax inspectors can print the tax notices

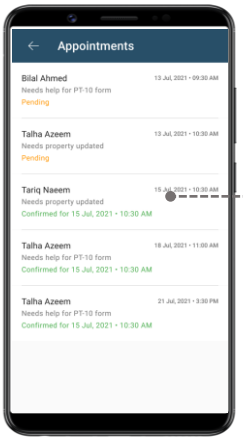


Taxpayer Correspondence
From main screen, Tax Inspector can open menu tab that has the option for taxpayer correspondence

Print notices
Within the same menu tac, tax inspector has the option to print tax notices like PT10, PT13 and PT1

Appointments
Through this window tax inspector can book confirm appointment requests from the taxpayers. This will significantly reduce the public dealing time at office

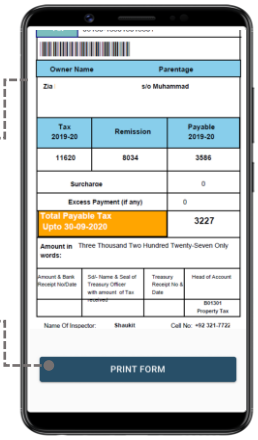




Appointments
In this window Tax inspector can see the pending as well as booked appointments. Tax Inspector can also see the date and time of appointment and the reason mentioned by the taxpayer in the appointment request

PT10 Form
Tax inspector has the option to view and print PT10 form of any property.

Print Form
Through this option Tax Inspector can print the PT10





Change in property in UIPT Dashboard

End User: Tax Inspector (TI)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
Identify an area for visit • Properties under section 9 are included in the system whole year • TI maintains a diary on which he notes change in property during his filed visit	• Noting information on a diary is an inefficient process • There is no technical support in deciding on which area to visit
Identify the properties • Once the TI reaches an area which he randomly selected, he talks to local people about any change in property • Contact occupants to get details	• Physically identifying the change in property is challenging • Owners are usually reluctant to give details i.e. rented or self-occupied
Note property details • Once the TI is able to get some details, he notes down on his diary • He might take some pictures • Tax Inspector gets info on 9 C (i, ii & iii)	• On diary he cannot GEO-tag property • There is duplication of work as TI first notes info in field and then enters that in UIPT • Pics are not tagged
Feed data in UIPT Dashboard • After getting info TI gets back to office • Logins into his UIPT Dashboard • Search for property that needs changes • Update Change Request Form	• Property search criteria in UIPT is really tough • Slow internet hampers progress • Data in diary might be lost if the effect is not given
Generate PT 13 from ETO • Once the TI feeds data into the Change Request Form, the updated information is sent to ETO for approval • ETO issues PT13 to be shared with Taxpayer	• TI keeps the info in his diary until the effect of property is given. In this way TI performance cannot be captured • No notification for 14 day period

Change in property in UIPT Dashboard

End User: Tax Inspector (TI)

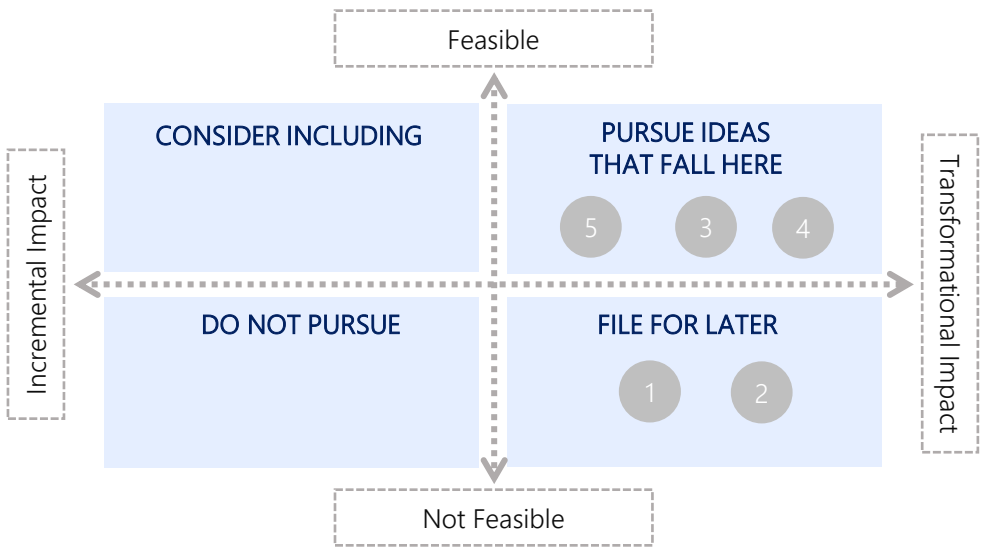
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
Tax Inspector identify an area for visit to note change in property details	1	More properties are identified with changes and it increase the tax collections
Tax inspectors identify the properties in an area to record changes	2	Maximum properties are identified
Tax inspectors record property details	3	The information can be efficiently collected and the properties are geotagged with images
Tax inspectors feed data into the UIPT dashboard	4	So that their efficiency is increased and there are no system issues in feeding the data
Tax inspectors get PT13 generated from the ETO delivers it to the taxpayer	5	The property is entered into the system in timely manner and taxpayer receives the PT13

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Change in property in UIPT Dashboard

End User: Tax Inspector (TI)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

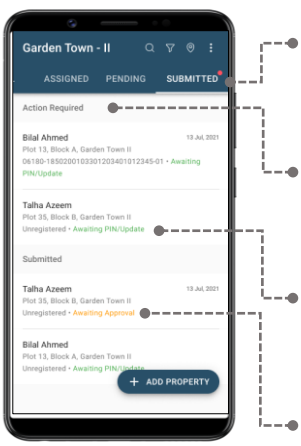
Development of a the change request form in the field app to capture properties data

The Features

- Inspector can fill CRF form through the field app
- Submit CRF forms to the ETO for approval and PT13

The Benefits

- Inspector can now collect section 9 info on the field app and geotag the property and take images



Submitted Properties
Those properties for which Section 9 CRF is submitted by TI to ETO for approval

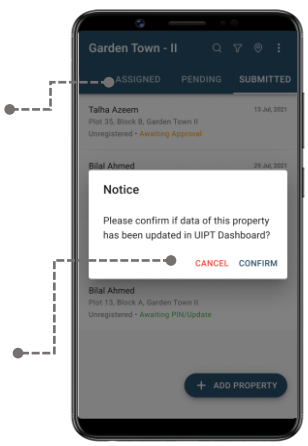
Action Required
Properties for which PT13 has been issued and 14 days have been passed

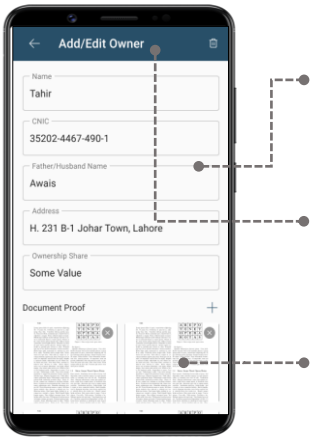
Awaiting PIN / Update
Properties approved by ETO but still not entered in the UIPT dashboard

Awaiting Approval
Properties which have been submitted by TI but not yet approved by the ETO. After

CRF process
Once the CRF is submitted, ETO then approves it and prints the section 9 form. He then issues PT13 and after 14 days if no objection is filed, he updates PT1.

Confirm Notice
When ETO updates PT1 in UIPT, Tax Inspector then confirms the entry by updating the property in the submitted forms





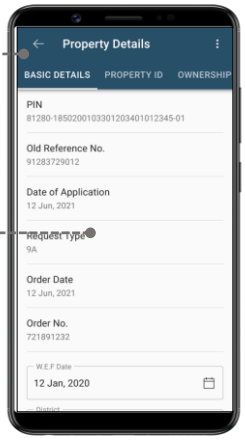
CRF Form
Tax inspector can open a CRF form to update the change in the property

Owner details
Tax inspector can Add / Edit owner details in the CRF form while in the field

Documents Upload
Field app also has the option to upload the relevant documents as proof

Update Property details
Tax inspector can add or edit details regarding the property and the owner in the CRF

Pre-filled information
Most of the information in the CRF is already pre-filled and Tax inspector has to update that information





New property information in UIPT

End User: Tax Inspector (TI)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
Identification of new property • TI randomly chooses and visits an area based on field information • He physically checks or asks local people if there is a new construction	• Physically checking new constructions is costly and time consuming • Some areas might be missed in this process
Collection of information • After identification of the new property / construction, Tax inspector collects information from the owner • TI notes the information on his diary	• Information on diary is risky as some info may be lost or complete details might not be captured i.e. pics of property or geo-tagging
Section 9 in UIPT • Once TI collects information, he gets back to office to fill Section 9 form on paper and in UIPT • TI selects new property tab and fills the form	• If the effect of the tax has to be given after some months then there is a chance that information on diary may get lost
ETO approval and issuance of PT 13 • Once the Tax inspector enters new property data in UIPT, it is sent to ETO for approval • Once ETO approves the details online, PT13 is issued	• Once PT13 is issued, it has to be delivered to the owner. • Physically delivering PT13 is a challenge • Owner sometimes do not receive PT13
Objection Handling • Once the ETO issues PT13 it is delivered to Owner. • Owner has 14 days to file objection after which the PT1 of the property is issued.	• If the owner does not receive the PT13 and if he has issues with the assessment at a later stage then he will go into appeal

New property information in UIPT

End User: Tax Inspector (TI)

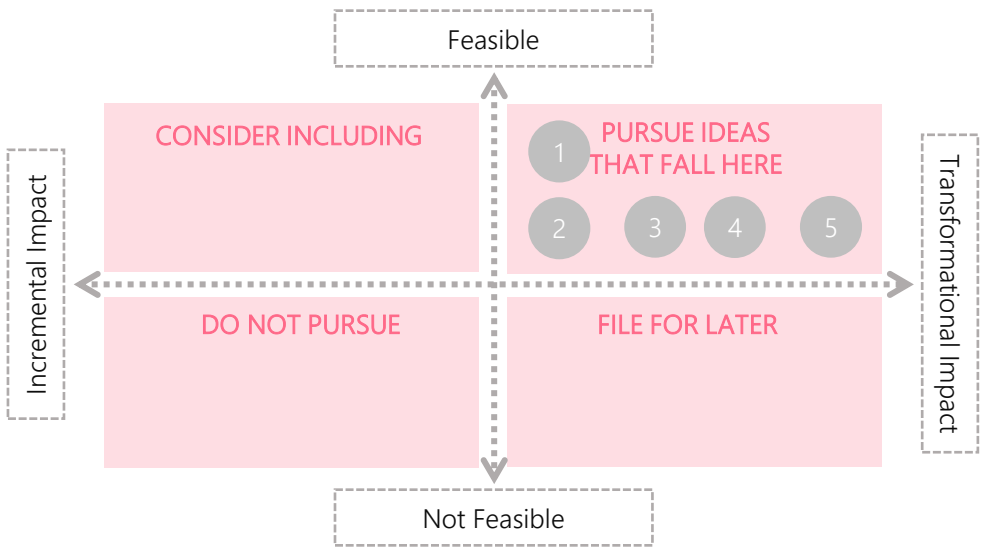
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
Tax Inspector identify new properties in the field	1	More properties are identified with changes and it increase the tax collections
Tax inspectors collects the information from the owner of new property	2	Correct and complete information is collected
Tax inspectors record property details in section 9 form in UIPT	3	Their efficiency is increased and there are no system issues in feeding the data
ETO approves the section 9 forms and issue PT13	4	The property is entered into the system in timely manner and taxpayer receives the PT13
Objections are handled at the Excise and Taxation Department	5	Taxpayers never file for appeals and their issues are resolved at objections level

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



New property information in UIPT

End User: Tax Inspector (TI)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

Development of a the change request form in the field app to capture new properties data

The Features

- Inspector can fill section 9 form through the field app
- Submit section 9 forms to the ETO for approval and PT13

The Benefits

- Inspector can now collect section 9 info on the field app and geotag the property and take images



Assigned Properties
Those properties which are prioritized by ETO or detected by ML Model

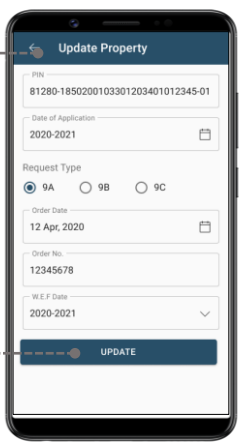
ML Detected List
ML detected property list just shows the coordinates. TI can add section 9 info here

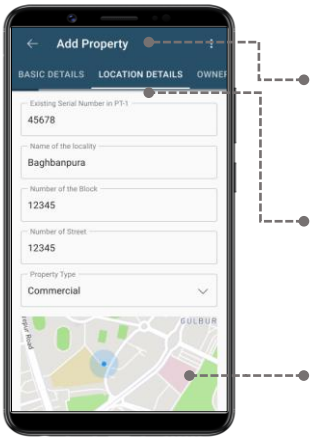
Priority tasks
Properties assigned by ETO to visit on priority basis during a week

Add property
Through this link Tax Inspector can open section form to add new properties

CRF process
Once the section 9 form is submitted, ETO then approves it and prints the section 9 form. He then issues PT13 and after 14 days if no objection is filed, he generates PT1 for the new property

Update Notice
When ETO generate PT1 of a new property in UIPT, Tax Inspector then adds the PIN number in the property listed in submitted list





Section 9 / Add property
Tax inspector can open section 9 form to add property details in the App

Location details
This is just one section of the Section 9 form i.e. ownership details, basic details etc.

Geo-tagging – Map View
Tax Inspector can geo-tag the property. Field App will directly pick the coordinates from the current location

Save and submit
Once the section 9 form is completely filled, tax inspector either saves it (in pending List) or submits to ETO (In submitted List)

Property Images
Through this online section 9 form, Tax Inspector can add images of the property





Day Planning and Task Assignment

End User: Tax Inspector (TI)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
Planning for Public Dealing • Public dealing consumes a lot of time of a Tax Inspector • Yet there is no technical support or planning to optimize public dealing	• Taxpayers visits are never planned • Taxpayer issues are also not previous shared with the Tax Inspectors • There is no prior appointment
Planning for property detection • TI's visits for property detection are not planned • TI randomly chooses an area for visit which is based on field information or tax collection visit	• Without a weekly or monthly visit plan with assigned properties, TI's visits cannot be effective • Un-planned visits are wastage of time
Planning for tax collection • Tax Inspector generates list of properties with pending tax • He prioritizes large payments for follow-up	• There is no map view available for TI to get a bird's eye view tax payment status of his circle • There are sorting issues with the list
Planning for correspondence • First 3-6 months PT10 delivery is done by constable • Taxpayers get PT1 from tax office • For large payments and in last 6 month TI and ETO lead tax collection process	• Physical delivery of notices is costly and challenging • Sometimes notices are not delivered • No online / digital support in taxpayer correspondence
Creating cushion for adhoc task • Adhoc tasks can come anytime which includes ETO requests, appeals management, coercive actions etc. • TI has to respond to adhoc tasks whenever they arise	• Adhoc tasks are unanticipated and this may consume time from routine tasks • Plan for other routine tasks need to be adjusted

Day Planning and Task Assignment

End User: Tax Inspector (TI)

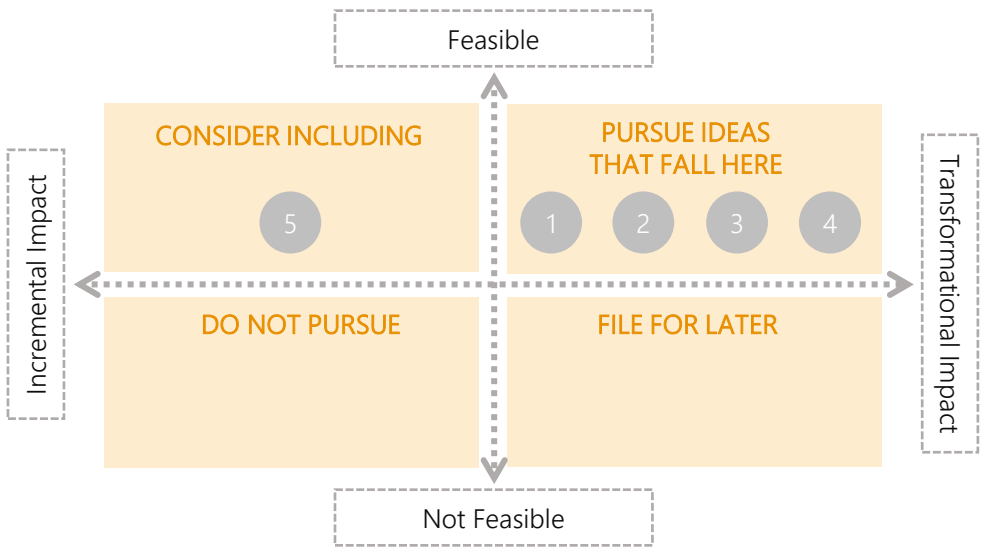
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
Tax Inspector plans for public dealing	1	Taxpayer visits to tax offices are planned and there is good customer service
Tax inspectors plans for property detection	2	So that there is a plan available to follow when going out in the field
Tax inspectors plans for tax collection	3	Their visits to the field for tax collection are effective
Tax inspector plans for correspondence	4	Their time is utilized for other important activities
Tax Inspector creates cushion for Adhoc tasks	5	They always have buffer time available for adhoc tasks

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Day Planning and Task Assignment

End User: Tax Inspector (TI)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

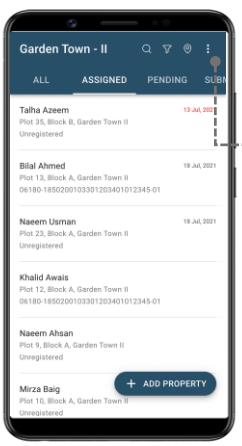
Development of a module to auto assign new properties to TI based on distance and number of properties

The Features

- Inspector can see current week's assigned properties
- Field App maps can guide the TI to the location

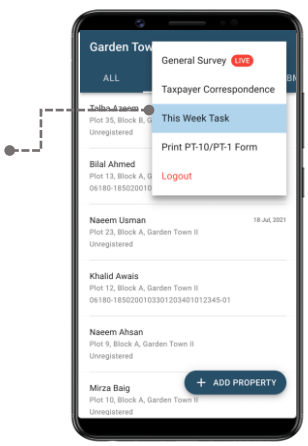
The Benefits

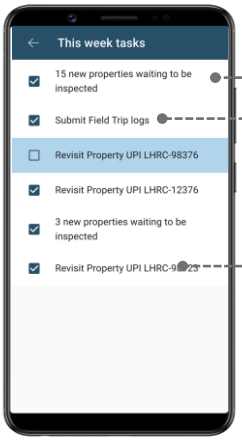
- Field visit routine of Tax inspectors will be optimized
- Tax Inspector's performance can tracked



Menu
Through this menu, Tax Inspectors can go to this weeks tasks and complete the assignments

This weeks tasks
Under this tab Tax Inspector can view the tasks assigned to him for this week





New property visits
System will alert Tax inspector if there are several new properties detected

Field trip logs
System will prompt tax inspector to submit the field visit logs to ETO

Revisit Property
System will find if there are any new constructions on a location and prompt tax inspector for a revisit.

Visit directions
System will also provide directions for any revisit or new location visit with the help of google maps





Managing Tax Inspectors performance

End User: Excise and Taxation Officer (ETO)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
Decide performance metrics • ETOs use various performance metrics for Tax Inspectors • Most important metric is tax collection • Other metric is increase in demand	• Since tax collection is the only metric used to track TI performance, other activities i.e. registering new properties, are usually neglected
Getting performance data • The data on the tax collection by Tax inspectors usually comes from the UIPT dashboard or through manual reports on the basis of treasury info	• Reports in the dashboard usually do not represent correct figures • There is no map view to prioritize areas for tax collection
Performance targets • Initially annual tax collection targets are set • Monthly targets are assigned based on annual targets and revised based on performance	• The targets are purely on the tax collection demand established last year • There are no targets for new property additions
Communicating targets • The tax collection targets are communicated monthly to the tax inspectors through a written letter	• Targets are only communicated through paper and there is no information available digitally
Recognition • If the TI meets his monthly target, he is given a letter of appreciation • If he cannot meet the target by a wide margin, then displeasure notice	• There is no comparison with the performance of other field staff • Tax collection is the only performance metric for recognition

Managing Tax Inspectors performance

End User: Excise and Taxation Officer (ETO)

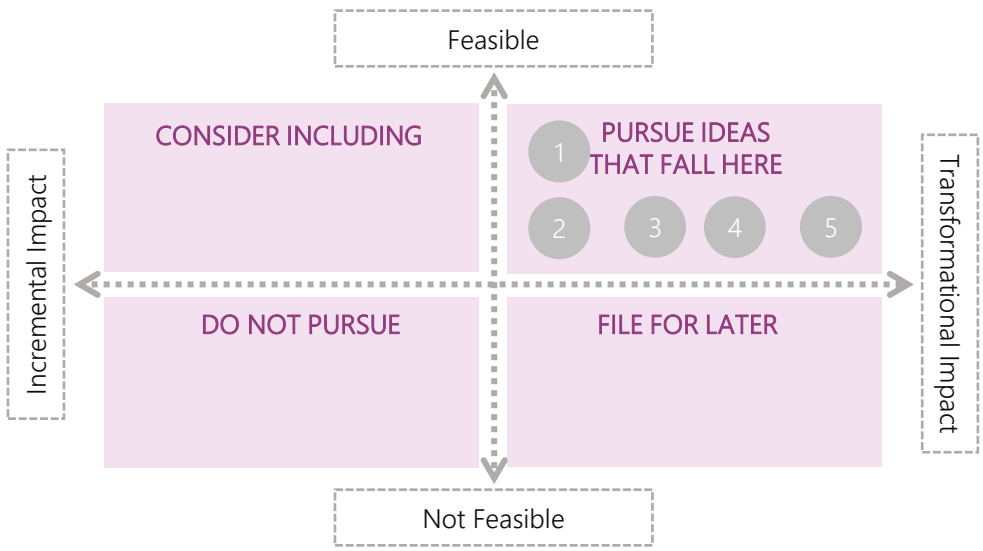
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
ETO decides performance metrics for Tax Inspectors	1	Tax inspector's performance is holistically measured and important metrics are used
Gets the data for the tax inspector's performance	2	He receives accurate on the performance of a tax inspector
ETO sets performance targets	3	There are realistic expectations from the tax inspector
ETO communicates performance targets to the tax inspectors	4	Tax inspectors plan their months, weeks and days accordingly
ETO recognizes the performance of a tax inspector	5	It motivates tax inspectors to further exceed the performance

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Managing Tax Inspectors performance

End User: Excise and Taxation Officer (ETO)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

A dashboard for ETO to monitor the performance data of tax inspector against agreed upon metrics

The Features

- Circle details
- Tax Inspector's performance on various metrics
- Recognition messaging

The Benefits

- ETO can manage the circle and the tax inspector's performance from a single dashboard

Number of taxable units
It also shows the total non-taxable units.

Tax collection status
Percentage of tax collected during the year

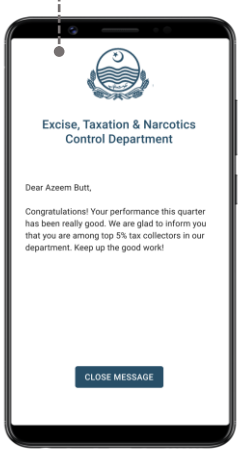
New properties visited
No of new properties visited during the month

Dashboard
Multiple options to manage overall zone



New properties registered
ETO can check the new properties registered per month

Send congratulations
ETO can send the congratulatory message to the TI for good performance



Properties visited
System also records the number of properties visited by the inspector

Tax collected
Shows tax collection performance month wise

Properties updated
Properties updated through section 9

Tax collection comparison
Performance of TI as compared to other inspectors

Tax collection vs Demand
This shows the amount of tax collected so far and the remaining demand for the year



Managing Zone

End User: Excise and Taxation Officer (ETO)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
Managing Circles / Tax Inspectors • ETOs usually manage 8 to 10 Tax Inspectors • ETO can view various circle reports on the dashboard i.e. tax collection status etc.	• The biggest challenge in the dashboard reports is accuracy of data • ETO cannot see TI performance on other metrics i.e. new property visit
Managing new property Addition • ETO approves all Section 9 paper and online forms • ETO reviews the progress of TI on new property detection as shared by him	• ETO has no access to any map for new property detection • ETO has no digital support for property detection
Managing Tax collection • Every tax inspector is given yearly and monthly targets • Their performance is managed through tax collection report from dashboard and treasury	• ETO cannot see on a map, which areas have paid tax so that he can prioritize TI's visits • Dashboard reporting is not accurate
Managing Reporting • ETO is responsible for all the reports of the zone • These include number of appeals, total demand, exemption status, payable tax etc.	• Although these reports have to be generated by the dashboard but owing to data issues, these are mostly prepared manually, hence challenging
Managing Taxpayers • Once the ETO issues PT13, he waits for the taxpayer objection • ETO deals with any issues that TI cannot handle i.e. property assessment	• There is no mechanism to alert ETO after 14 days of issuance of PT13 • ETO can only interact with taxpayers in person • No objection management

Managing Zone

End User: Excise and Taxation Officer (ETO)

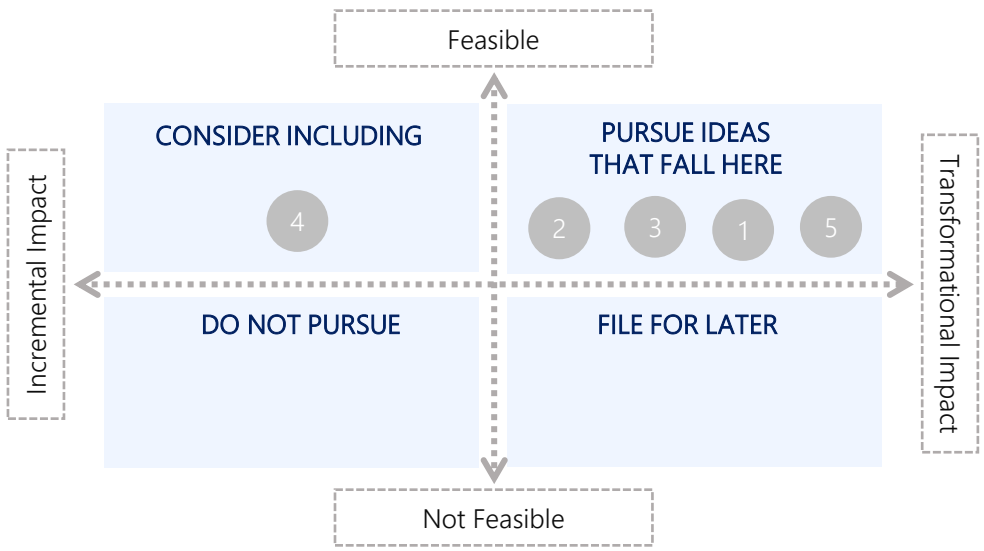
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
ETO manages the tax inspectors / circles	1	All the tax inspectors meet their targets and are motivated and satisfied with the work
ETO manage new property addition in the UIPT dashboard	2	More new properties are detected and included into the tax net
ETO manages tax collection	3	He meets his target for tax collection in a timely manner
ETO manages reporting	4	Whenever he needs a report, he ca easily retrieve it through the dashboard
ETO deals with the taxpayers and manages expectations	5	There are less appeals coming out of his zone

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Managing Zone

End User: Excise and Taxation Officer (ETO)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

A dashboard for ETO to monitor an compare the progress of all tax inspectors in his zone

The Features

- Circle details
- TI performance comparison
- Taxpayer correspondence
- Objection management

The Benefits

- ETO can manage his multiple roles on single dashboard efficiently

Tax collection status
ETO can see the comparison of the tax collection status by the tax inspectors. He can also view the comparison of other reports.

Tax collection
ETO can also manage tax collection through this dashboard. ETO can view the properties who have paid tax and those who haven't, as a list and on the map. ETO can also view the visit status of TI for tax collection.

Properties
ETO can manage properties through this tab. ETO can view and manage registered properties, ML detected properties as a list and on the map. Prioritize properties for inspector's visit, Approve and reject section 9 forms.

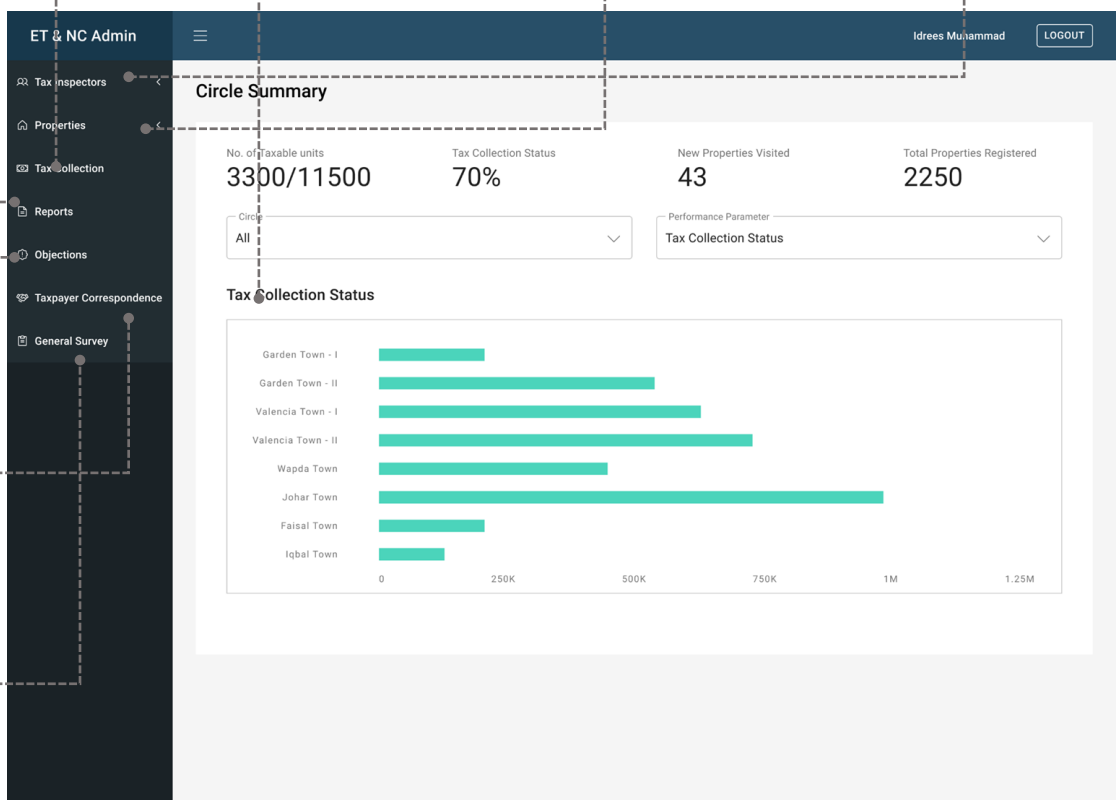
Tax Inspectors
ETO can manage the tax inspectors through this tab. They can add or remove tax inspectors, assign circles, define circle boundaries, crate login for field apps etc.

Reports
ETO can generate any kind of reports from this section

Objections
ETO can also manage the objections of the taxpayers through this dashboard

Taxpayer Correspondence
ETO can send PT10, PT1 notices to the taxpayers on their app and also interact

General Survey
ETO will manage General Survey from here. This tab is inactive now.





Approving Section 9 information

End User: Excise and Taxation Officer (ETO)

User Journey

In order to discover End User Journey, it is important to first map the steps that the user goes through in order to perform the desired activity. While mapping the journey, record all the actions that users take, describe the actions and discover the challenges that he faces while performing that activity

Step and Actions	Challenges
Receiving section 9 form • Once the TI collects new or change in property info, he fills Section 9 form on paper and online • ETO receives the form for approval • ETO assesses detail	• ETO has to maintain the paper based file for section 9 forms sent by Tax inspectors • Some forms on TI's diary may be lost
Issuance of PT 13 • After receiving section 9, ETO assesses property and issues PT13 • PT13 is issued for new property, new ownership & new assessment	• Once the PT13 is issued, there is no mechanism for alert of 14 days of grace period • Sometimes PT13 does not reach the taxpayers
Handling Objection (If any) • After PT13 is delivered, taxpayer is given 14 days to file objection against assessment • If he comes then objection is heard by the ETO	• There is no objection management system where taxpayer concerns are recorded for future references
Issuance of PT 1 • If the ETO hears the objection, he either changes the assessment or keeps it same in PT1 • If taxpayer does not show up then ETO issues PT1	• Sometimes PT1 issued are not shared with the taxpayer • There is no medium of interaction with taxpayers other than in person
Tracking TI performance • ETO checks the performance of tax inspectors on the number of section 9 forms filled during a month or a year. • This information is manually reported	• There are no metrics other than tax collection for which reliable data is available • There is no digital presence of any such data

Approving Section 9 information

End User: Excise and Taxation Officer (ETO)

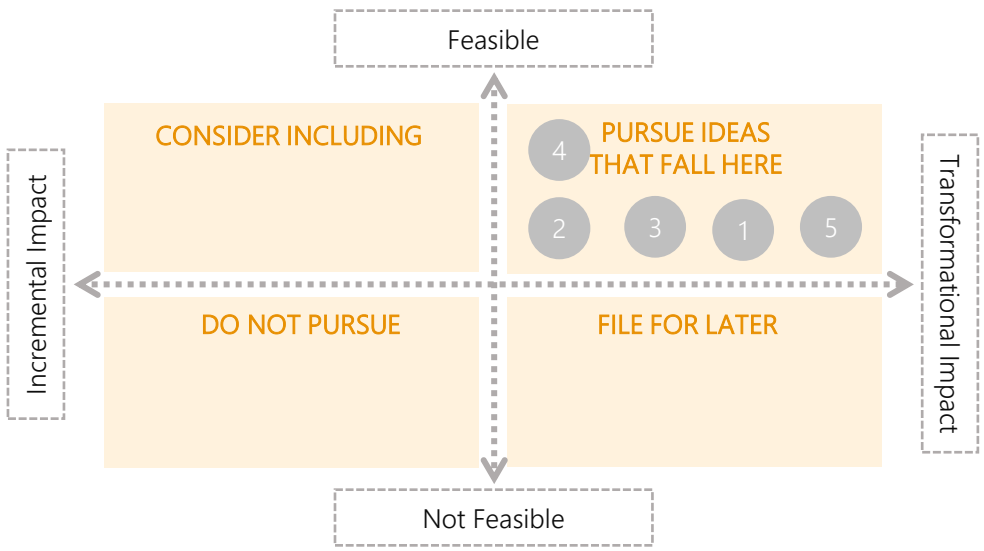
Design Challenge

Once the user journey is mapped, it is important to highlight the design challenge so that the relevant solutions can be discussed.

How might we change the way		So that
ETO receives the section 9 forms	1	There is efficiency on the whole process
ETO manages the issuance of PT13	2	So that all the issued PT13 are delivered to the owners and there are no issues
ETO handles objection	3	So that all the objections are handled at his level and no customer goes into appeal
ETO manages the issuance and delivery of PT1	4	Correct information is entered into the system and PT1 is shared with the taxpayer
ETO tracks tax Inspectors performance regarding section 9	5	ETO sees the exact data on the performance of TIs

Idea Evaluation

Above mentioned solutions that are feasible and have transformational impact should be prioritized for implementation.



Approving Section 9 information

End User: Excise and Taxation Officer (ETO)

Service Design Concept

After finalizing the solutions for feasibility and impact, service design concepts are finalized along with features and intended benefits.

The Solution

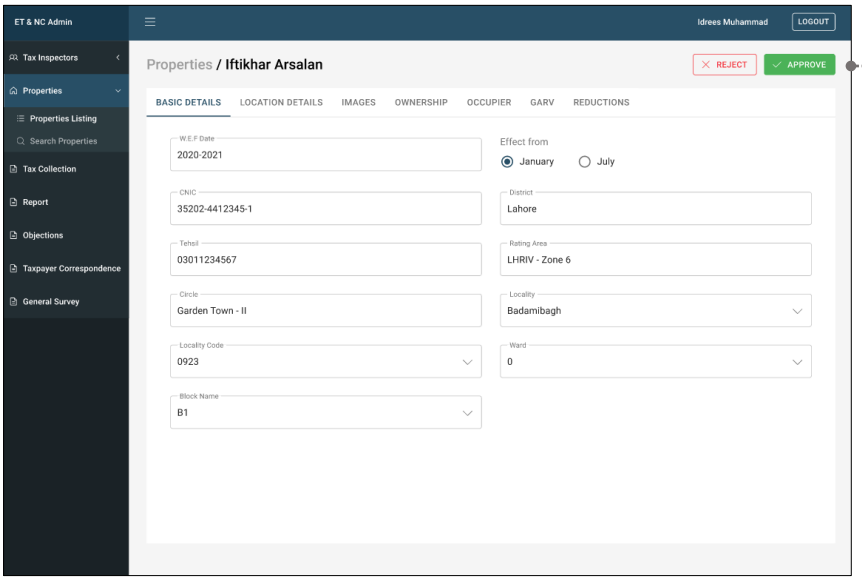
A dashboard for ETO to monitor the section 9 forms and running property detection

The Features

- Viewing, approval and rejection of section 9 form
- ML property detection
- Section 9 form printing

The Benefits

- ETO can manage the whole process of section 9 approval conveniently

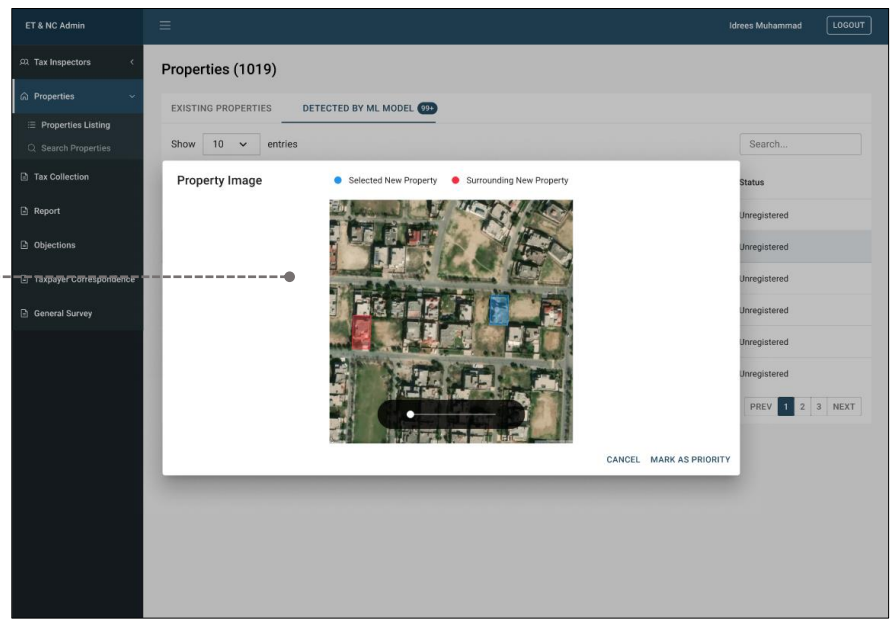


View, approve & reject Section 9

- ETO can open PT1/Section9 form in view mode and review all sections filled by TI via app
- Once the TI submits Section9 for approval, on property listing it will show status **"Awaiting Approval"**
- ETO will open the form and either Approve or Reject it.
- Depending on the status, it will show the status on Section and in listing page.
- These changes will also reflect in field app

Properties detected by ML model

- Detected properties will be shown as a list and map view
- New property upon clicking will show the Map View of where property lies.
- Blue polygon is selected / clicked-on property
- Red Polygon is surrounding new property to make it easier for ETO to view near-by new properties



Acknowledgements

We are grateful for the contribution made by the following staff of the Excise Taxation & Narcotics Control Department (ET&NC) during the development of Property Tax Innovation through Digital Technologies (PTID) HCD document.

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Mr. Zeeshan *(Tax Inspector)*
Mr. Shoaib *(Tax Inspector)*
Mr. Azhar Bashir *(Tax Inspector)*
Mr. Ammar Raza *(Tax Inspector)*
Mr. Mohsin *(Tax Inspector)*
Mr. Ghulam Freed-ud-din *(Tax Inspector)*
Dr. Mohammad Iqbal *(Tax Inspector)*
Mr. Shehryar Khalid *(Tax Inspector)*
Mr. Masood Qureshi *(Tax Inspector)*



> A user interface is like a joke. If you have to explain it, it's not that good.

Martin LeBlanc

