

# Impact Assessment Study of e-Governance Projects in 12 States in India

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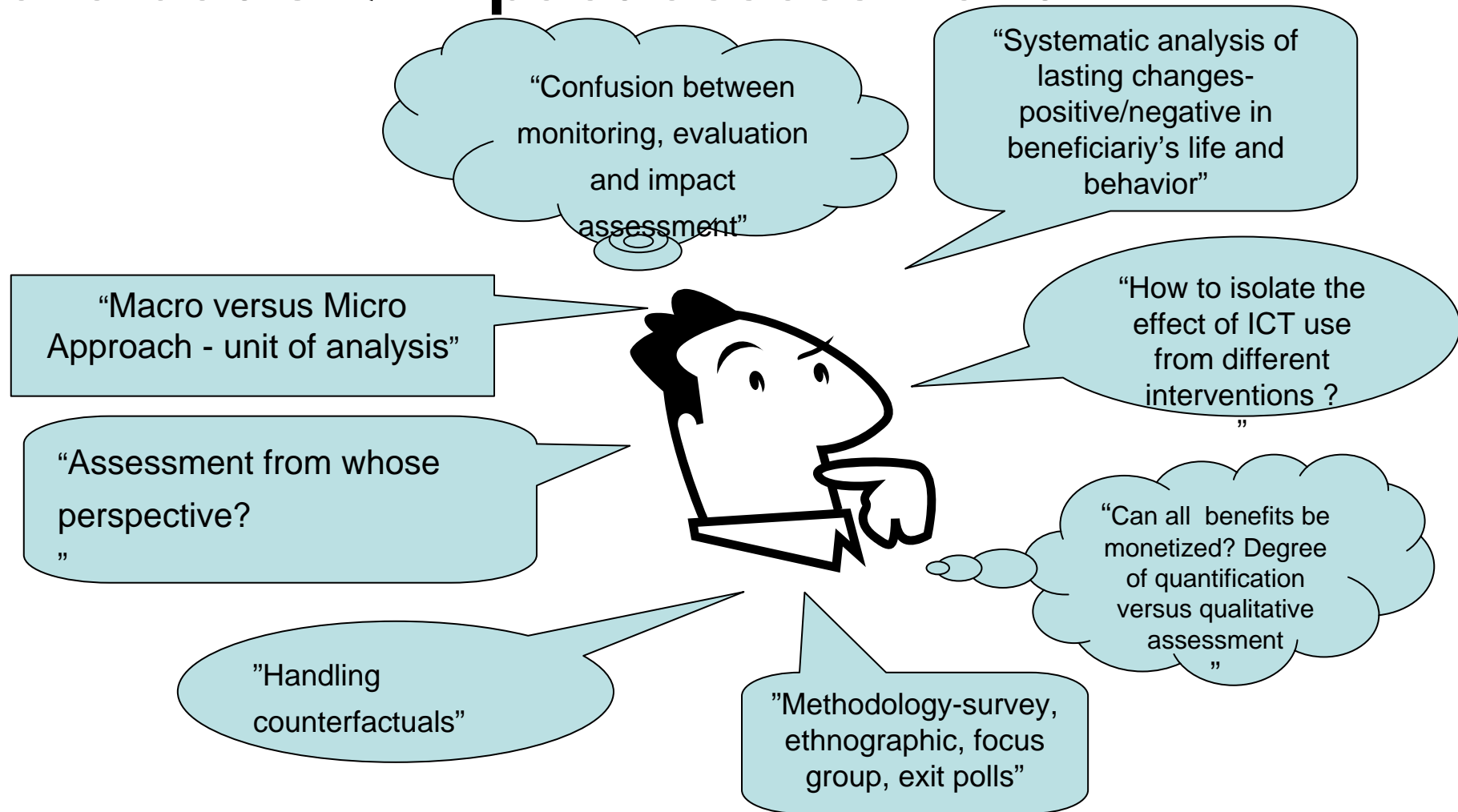
# Presentation Structure

- Why assess impact?
- Learning from past work on assessment
- Proposed Methodology
- Measurement Framework and Indicators for assessing impact on clients
- Lessons for assessment work

# Why Impact Assessment?

- To ensure that funds deployed in eGovernment provide commensurate value.
- To create a bench mark for future projects to target
- To identify successful projects for replication and scaling up
- To sharpen goals and targeted benefits for each project under implementation- make mid course corrections
- To learn key determinants of economic, organizational, and social impact from successful and failed projects

# Issues and challenges in evaluation/impact assessment



# Learning from Past Assessments

- Variety of approaches have been used-client satisfaction surveys, expert opinion, ethnographic studies
- Client satisfaction survey results can vary over time as benchmark changes - need for counterfactuals
- Often studies have been done by agencies that may be seen as being interested in showing positive outcome
- Lack of credibility of results - different studies of the same project show very different outcomes
- Lack of rigor in sampling-results can not be easily generalized
- Lack of rigor in controlling for external influence-need for counterfactuals ignored.
- Lack of a standard methodology - making it difficult to compare projects
- Hardly any projects do a baseline survey

# Critique of Existing Frameworks

- Biased towards quantification of short term direct cost savings- quality of service, governance and wider impacts on society not studied.
- Conceptual in nature-hardly any frameworks have been applied to assess impact of real projects
- Variety in delivery models has not been recognized. Impact is a function of the delivery model and the nature of clients being served
- Practical issues of paucity of data have not been taken into account-particularly in a developing country context where baseline surveys are not done and M&E systems are weak

# Measurement Framework

Stakeholders	Key Dimension of Impact
Client	Economic (Direct & Indirect) Governance (Corruption, Accountability, Transparency, Participation) Quality of Service (Decency, Fairness, Convenience, etc.) Over all satisfaction
Agency (Including Partners in Implementation)	Economic (Direct & Indirect) Governance (Corruption, Accountability, Transparency, Participation) Performance on Key Non-economic Objectives Process Improvements Work life of employees
Society Other Departments Government as a Whole Civil Society	Desirability of investments in e-Government Impact on vulnerable groups Image of Government (Efficiency, Corruption, Accountability, Transparency, Participation, Responsiveness) Impact on development Goals

**Focus of the Proposed Assessment**  
**Impact on Clients (Citizens and**  
**Businesses)**

# Background

- Need to assess impact of on-going initiatives on common man: Apex Committee directed DIT to coordinate the exercise
- Independent assessment through Empanelled Agencies
- Study covered
  - 3 State-level projects in 12 States
    - Land Records: issue of RTC and Mutation
    - Property Registration
    - Transport: vehicle registration and driver's license
  - 3 National-level projects
    - Income Tax
    - MCA-21
    - Passport
- Assessment on key parameters through survey of users—framework designed and coordinated by IIM(A)

# Methodology for Assessment

- Understand the context of service delivery- which services, what parts of the service delivery is electronic, access mechanisms, areas of potential impact
- Collect data through structured survey from clients using counterfactuals (for old non computerized delivery and new e-delivery system)
- Customize survey instrument to each project, adapt in local language
- Determine sample frame and size so that results can be extrapolated to the entire population. Select respondents randomly from locations stratified by activity levels and remoteness
- Use trained investigators with appropriate supervision for face to face interviews
- Build control mechanisms for check on data quality

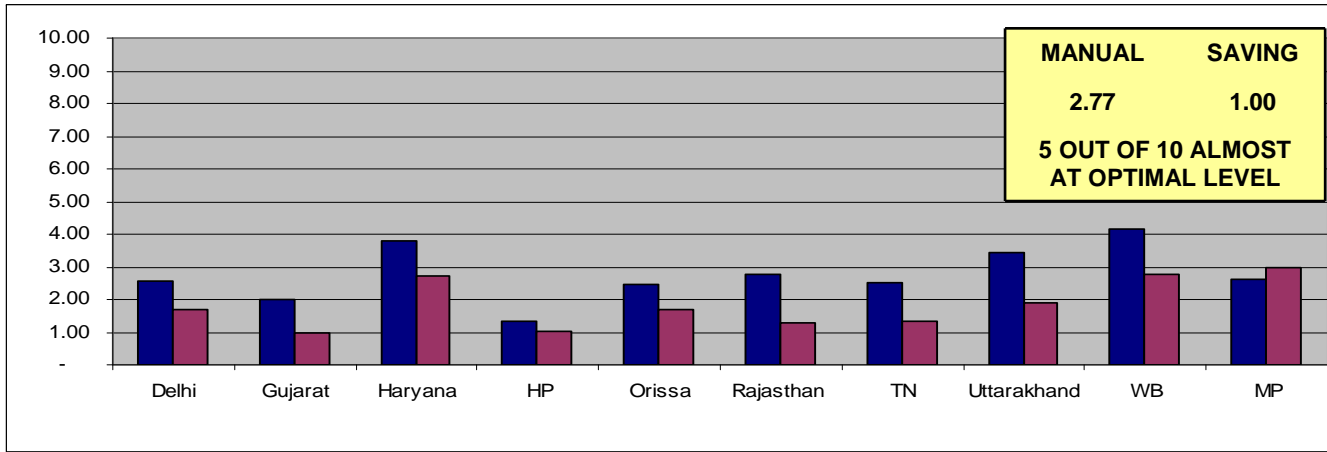
# Measurement of Impact on Users

- Cost of Availing Service Measured Directly
  - Number of trips made for the service
  - Average travel cost of making each trip
  - Average waiting time in each trip
  - Estimate of wage loss due to time spent in availing the service
  - Total time elapsed in availing service
  - Amount paid as bribe to functionaries
  - Amount paid to agents to facilitate service
- Overall Assessment
  - Preference for manual versus computerized systems
  - Composite Score: Measured on 5-point scale factoring in the key attributes of delivery system seen to be important by users
- Quality of Service
  - Interaction with staff, complaint handling, privacy, accuracy measured on a 5-point scale
- Quality of Governance
  - Transparency, participation, accountability, corruption measured on a 5-point scale

# Methodology & Results

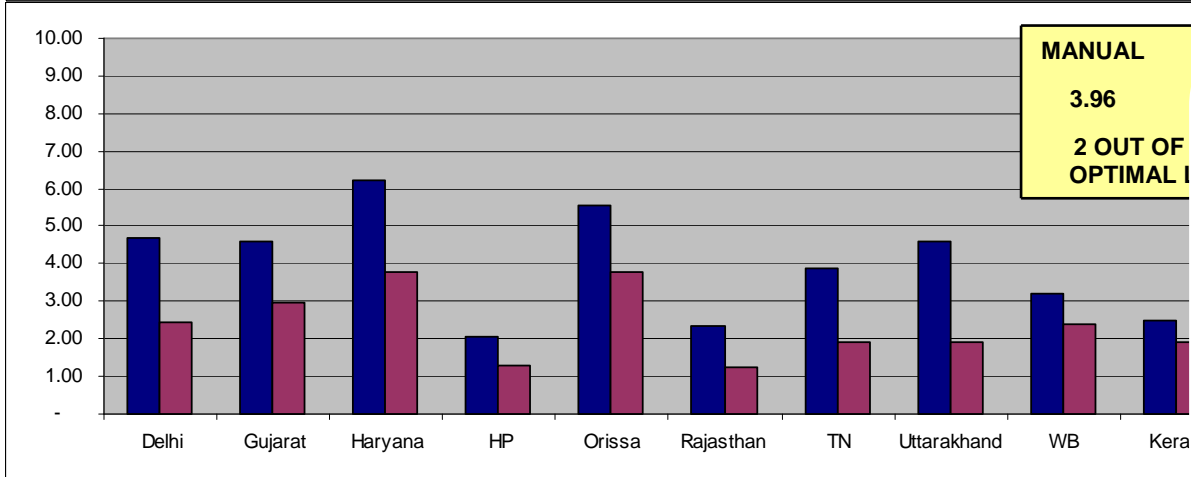
- Sampling Methodology
  - Methodology was tested in 8 projects in 3 states in an earlier IIMA-DIT study
  - Randomly selected sample of 600-800 respondents in each State-level project and 7000-8000 in each National-level project
- Quality of Data
  - Overall number of users for the 36 projects is about 20 million
  - With a total sample of 25000, reasonably accurate generalization about impact can be made
  - In most cases the impact is found to be statistically significant
- Limitations
  - In the absence of any benchmark surveys, study relied on recall for experience with manual delivery
  - Eliciting data on bribery was difficult in some states, particularly if agents were used

LAND RECORD

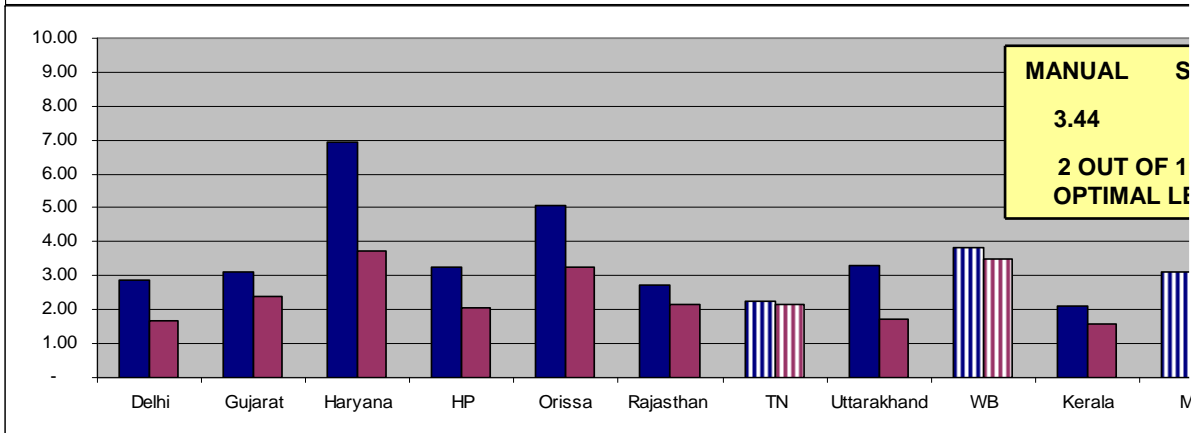


MANUAL  
COMPUTERISED

PROPERTY



TRANSPORT

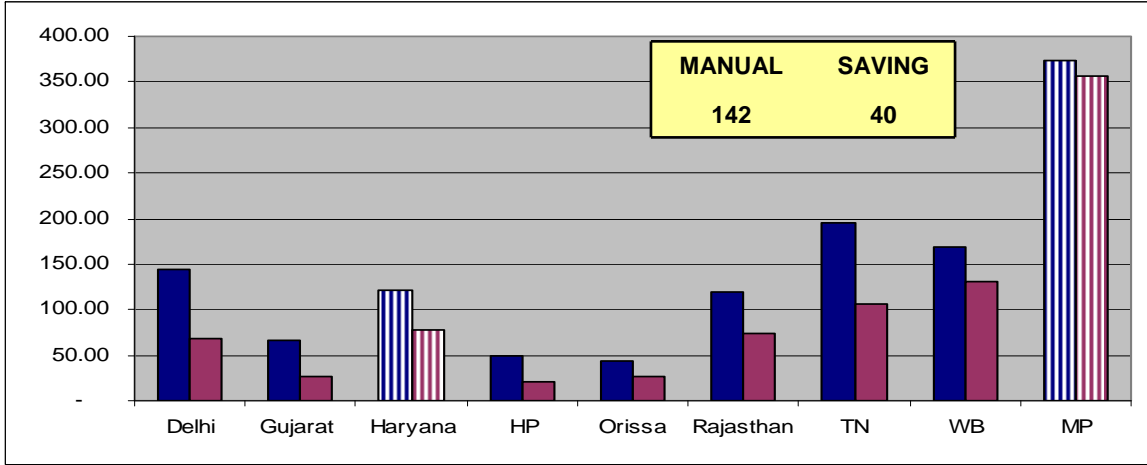


Procedure not clear to client  
Long queues:  
Mismatch between agency's capacity and demand for service  
Staff absenteeism  
Power breakdown/ system failure  
Too many documents required from client  
No appointment system

NUMBER OF TRIPS

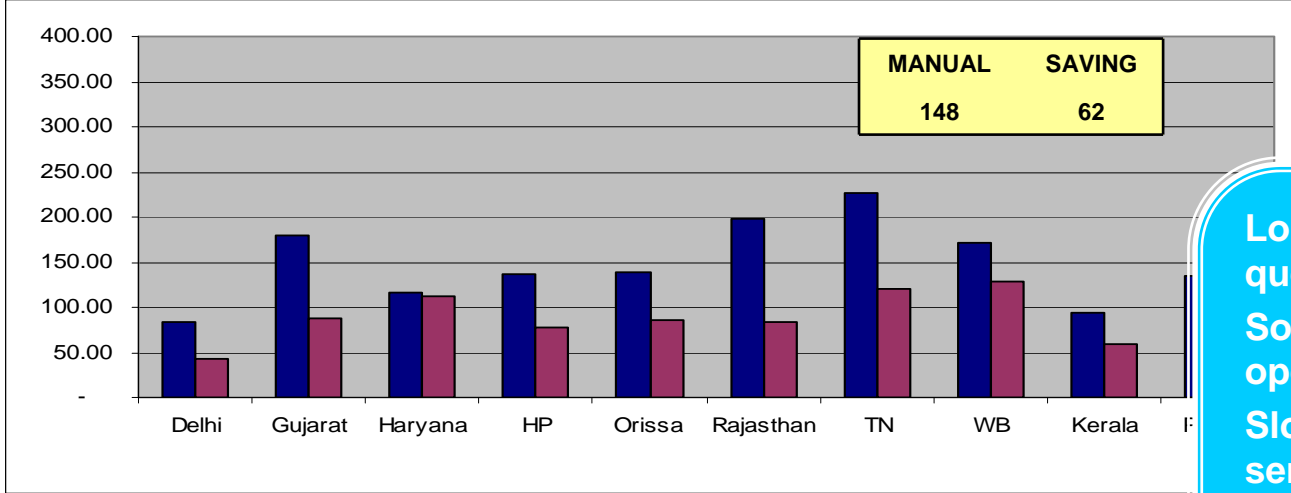
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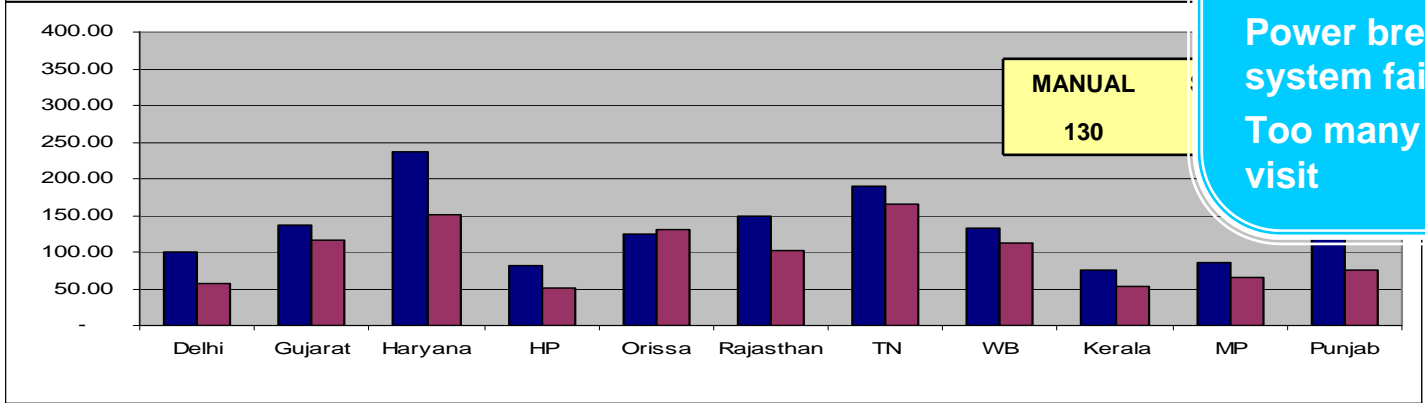
**MANUAL**  
**COMPUTERISED**  
**(MINUTES)**

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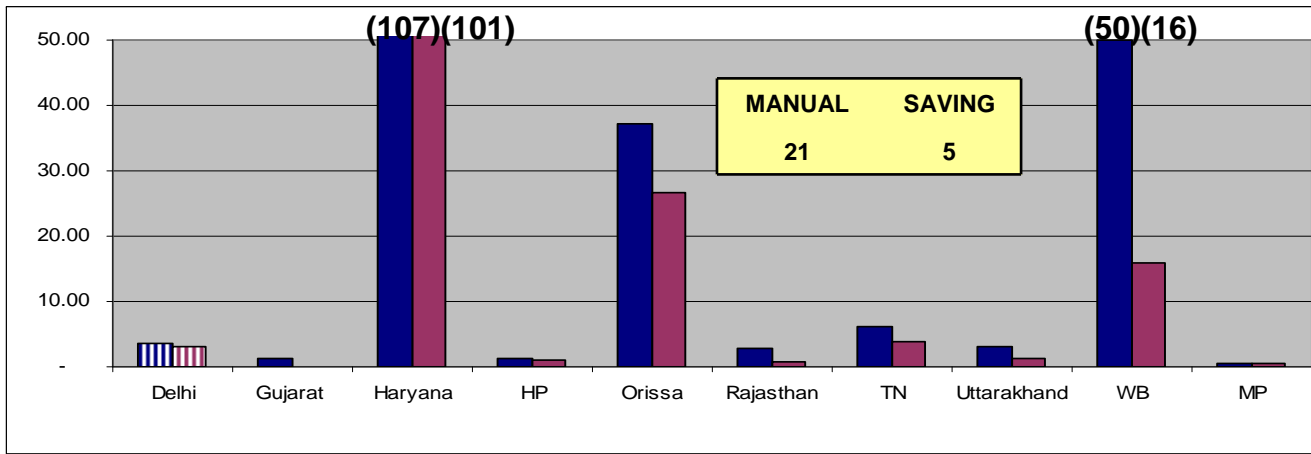


**Long/badly managed queue**  
**Some counters not operational**  
**Slow processing at service center**  
**Power breakdown/ system failure**  
**Too many windows to visit**

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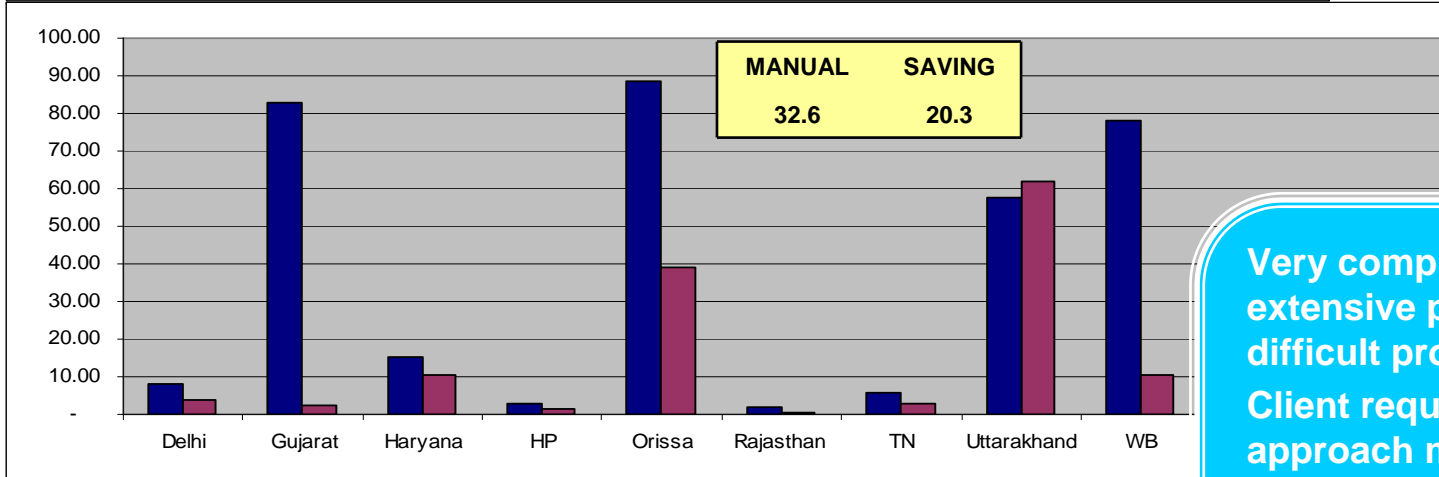


LAND RECORD



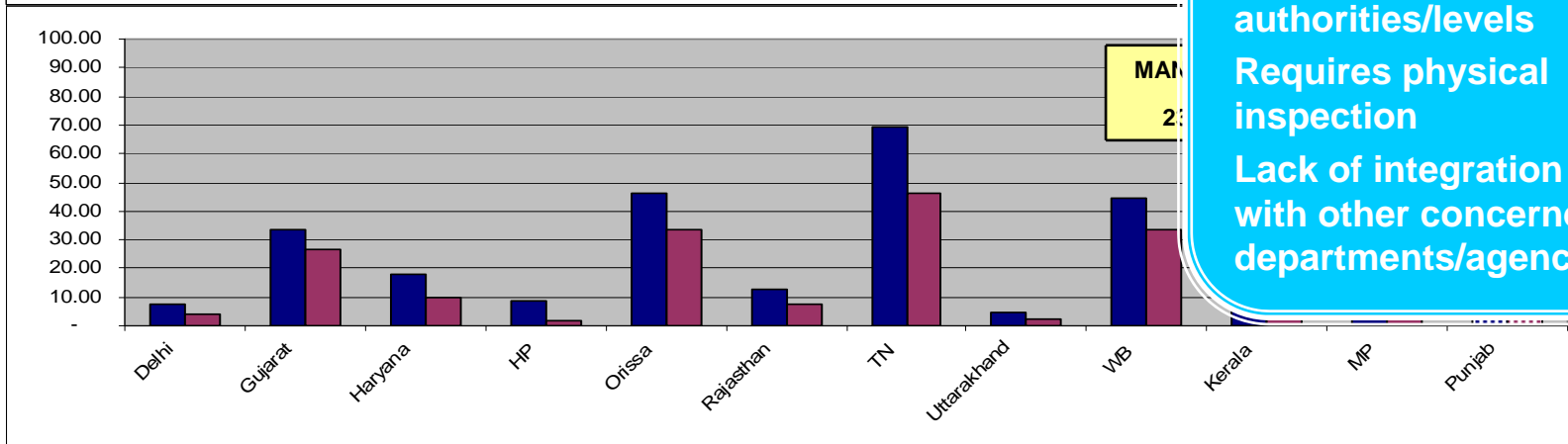
MANUAL  
COMPUTERISED  
(DAYS)

PROPERTY



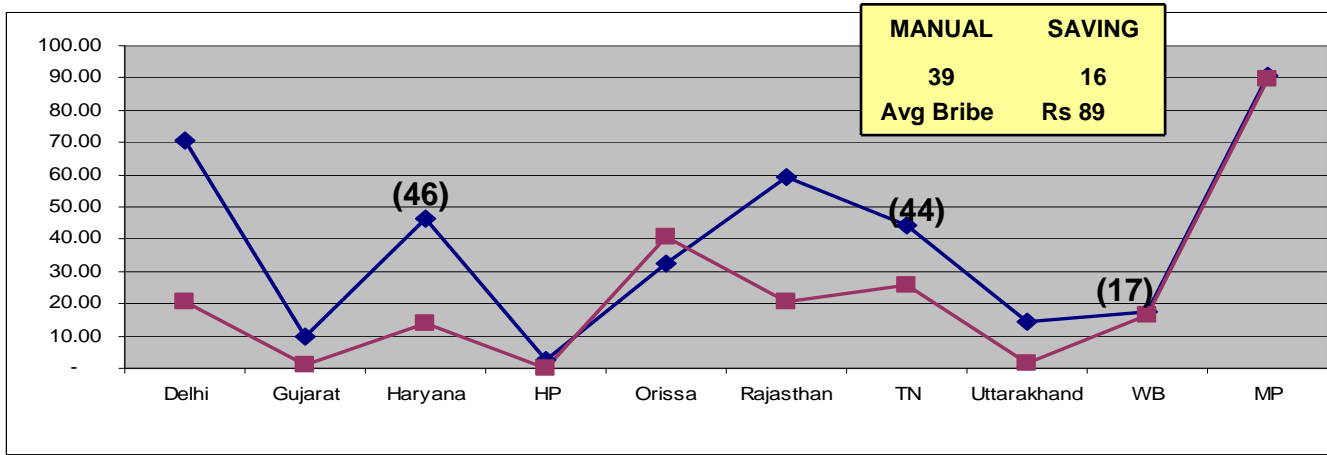
Very complex process-extensive paperwork, difficult procedures  
Client required to approach multiple authorities/levels  
Requires physical inspection  
Lack of integration with other concerned departments/agencies

TRANSPORT



ELAPSED TIME

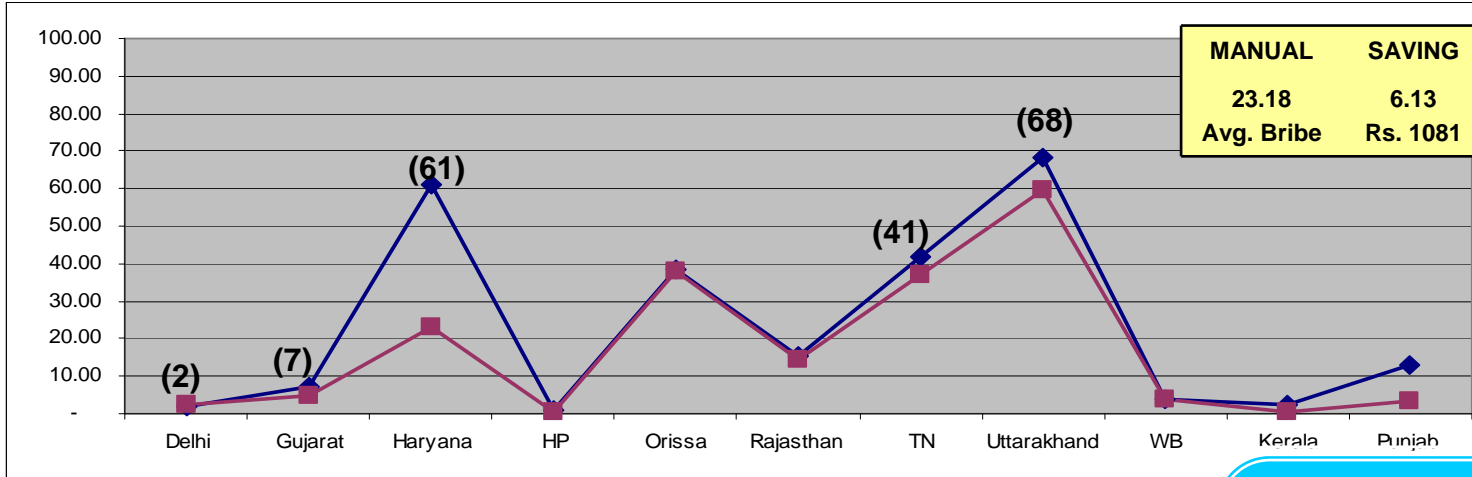
LAND RECORD



MANUAL  
COMPUTERISED  
( ) % USING AGENTS

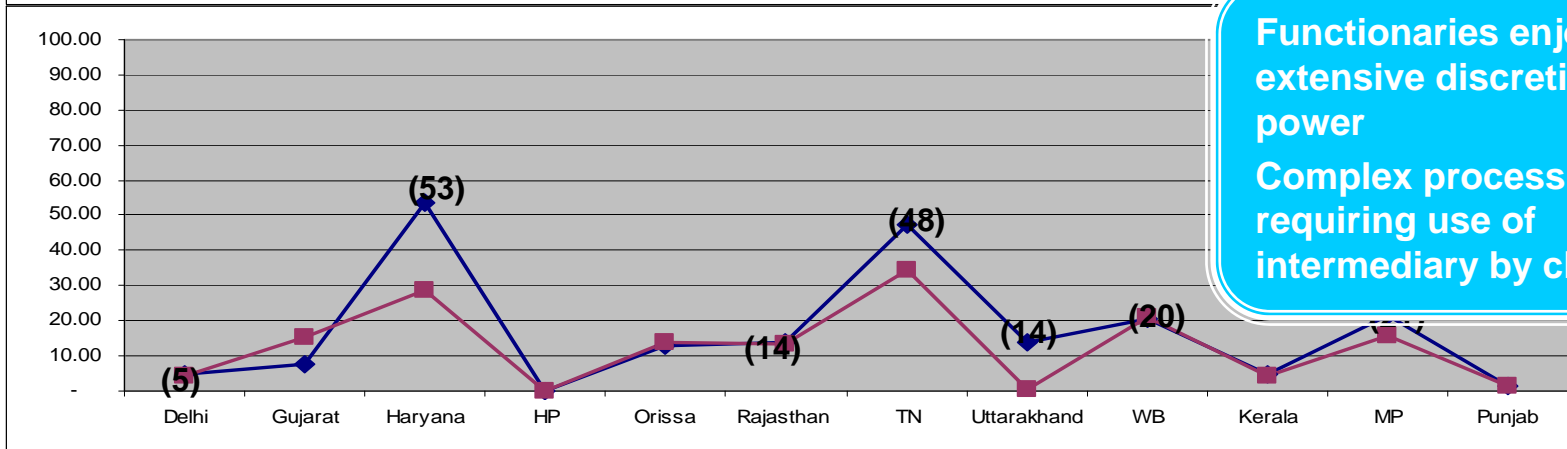
% PAYING BRIBES

PROPERTY



MANUAL 23.18 Avg. Bribe  
SAVING 6.13 Rs. 1081

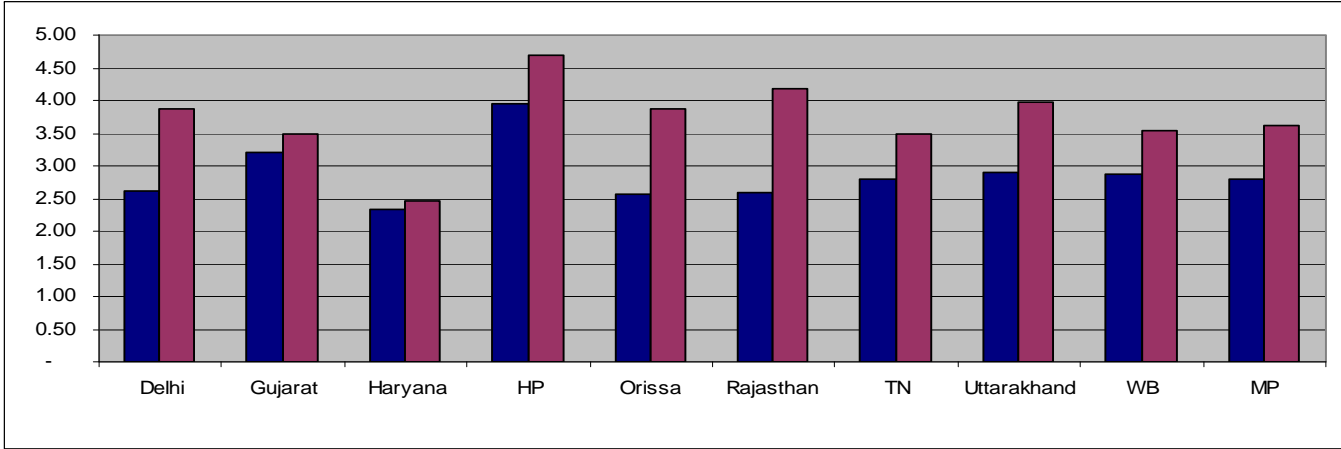
TRANSPORT



Functionaries enjoy extensive discretionary power  
Complex process requiring use of intermediary by client

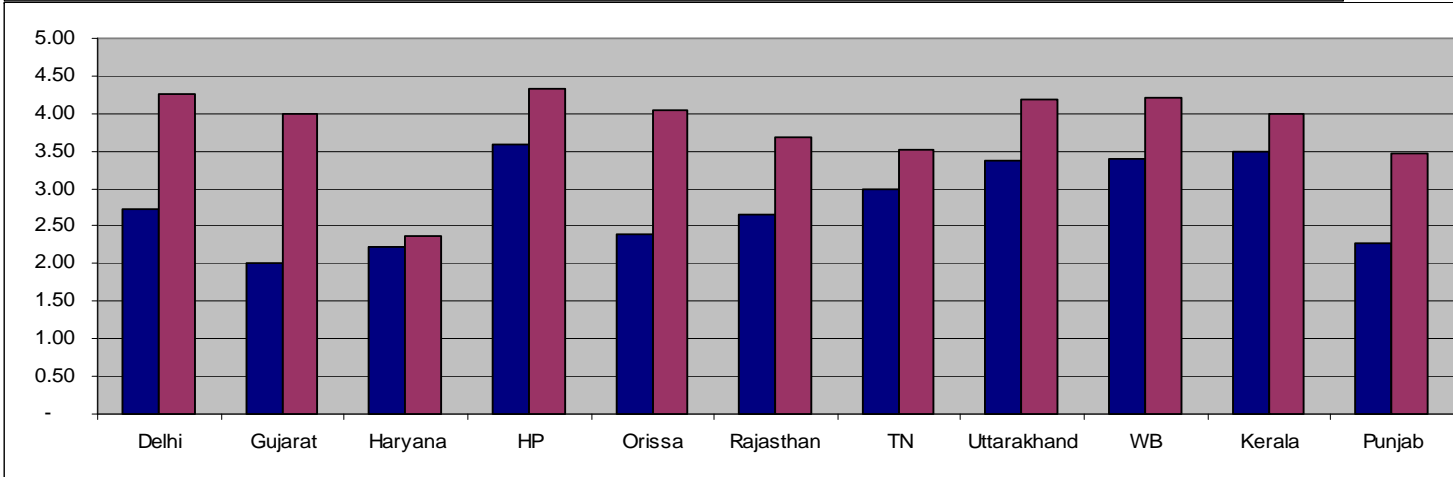
# GOVERNANCE SCORE

LAND RECORD

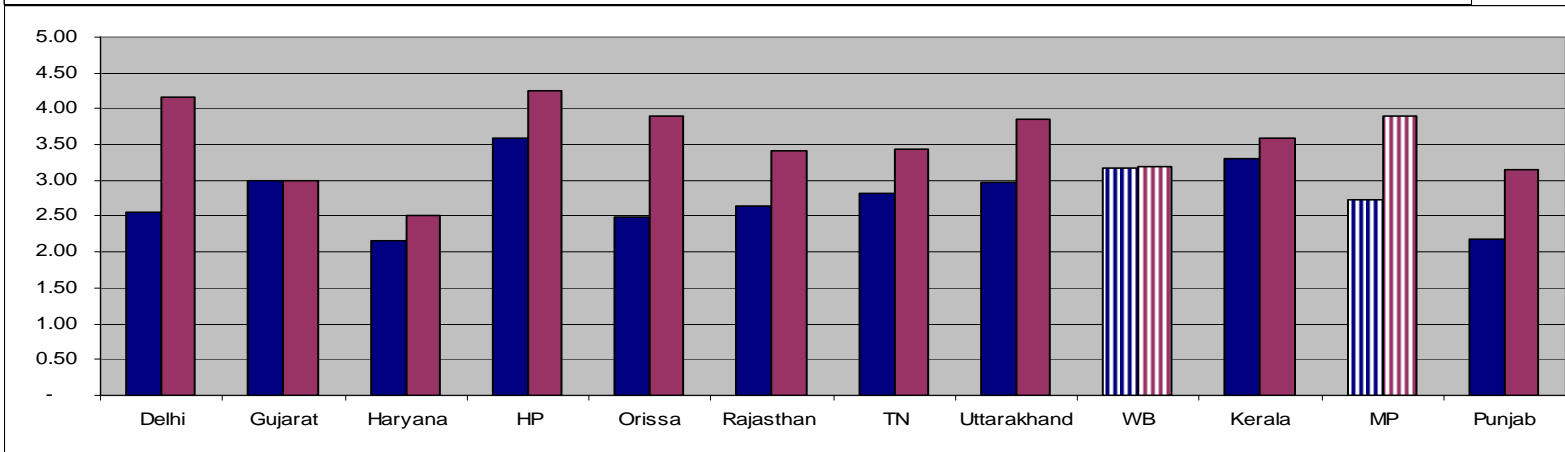


MANUAL  
COMPUTERISED  
(5-POINT SCALE)

PROPERTY



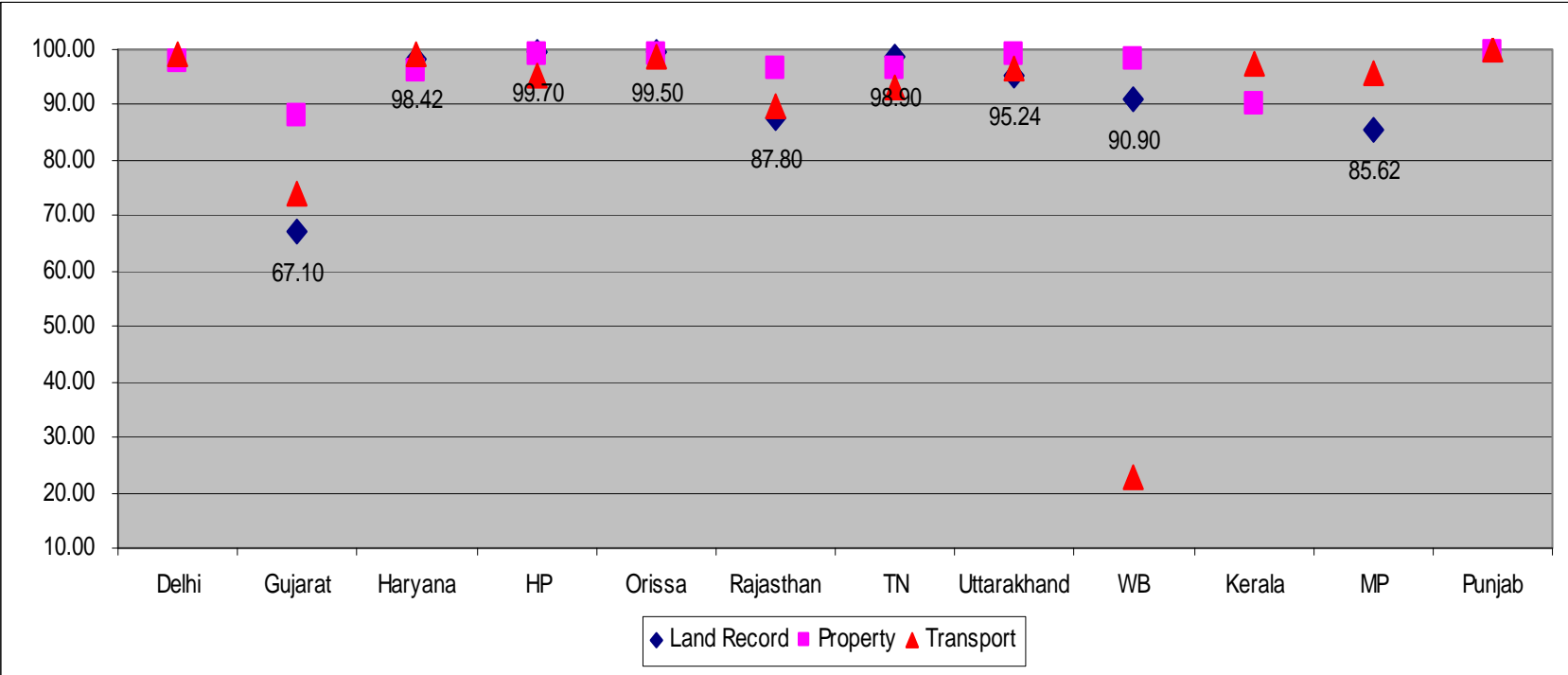
TRANSPORT



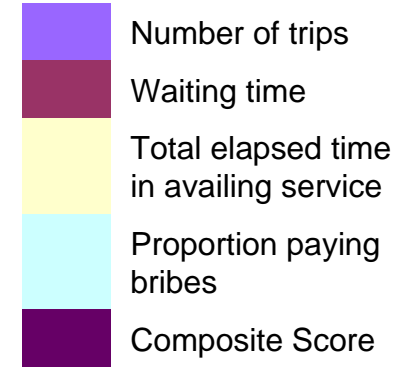
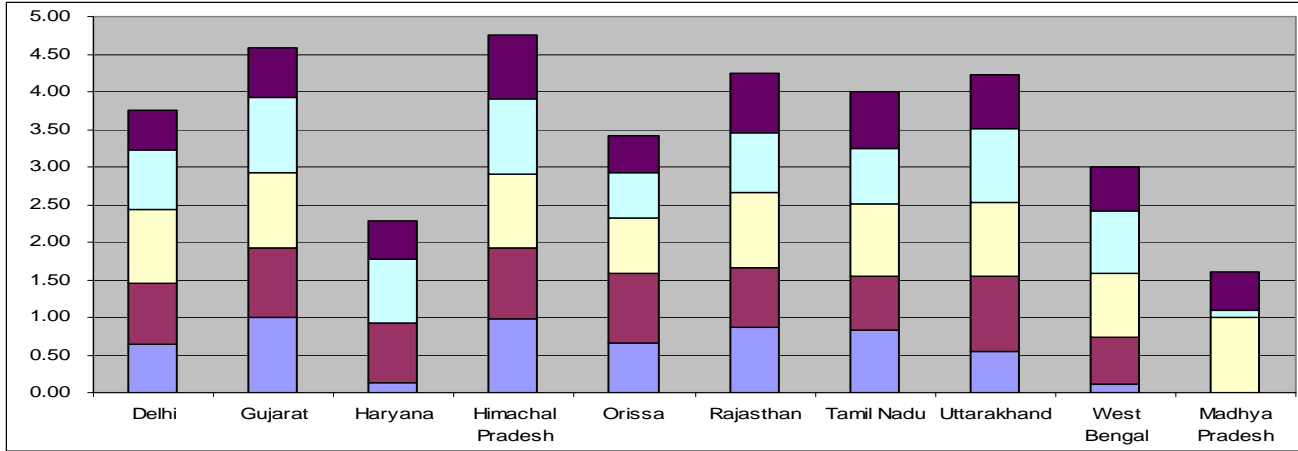
# Project-wise Impact on Direct Cost to Users

State	Land Record		Property		Transport	
	Manual	Computerized	Manual	Computerized	Manual	Computerized
Delhi	381.62	184.05	376.92	389.47	297.28	252.57
Gujarat	57.70	92.44	510.75	326.45	240.60	271.75
Haryana	631.01	477.85	1,197.38	936.67	1,029.95	794.65
HP	28.86	28.10	119.47	57.27	85.31	163.52
Orissa	531.12	621.13	587.22	609.64	264.93	256.68
Rajasthan	316.14	163.49	621.51	799.13	446.27	354.68
Tamil Nadu	246.62	160.40	693.06	562.73	296.55	376.63
Uttarakhand	397.22	190.97	1,781.47	1,443.43	484.20	274.49
West Bengal	287.12	329.37	232.65	235.82	351.01	331.89
MP	272.29	399.02			1,031.82	700.02
Kerala			222.80	199.94		
Punjab			494.25	364.59	423.36	371.80
Average	314.97	264.68	621.59	538.65	412.61	345.72

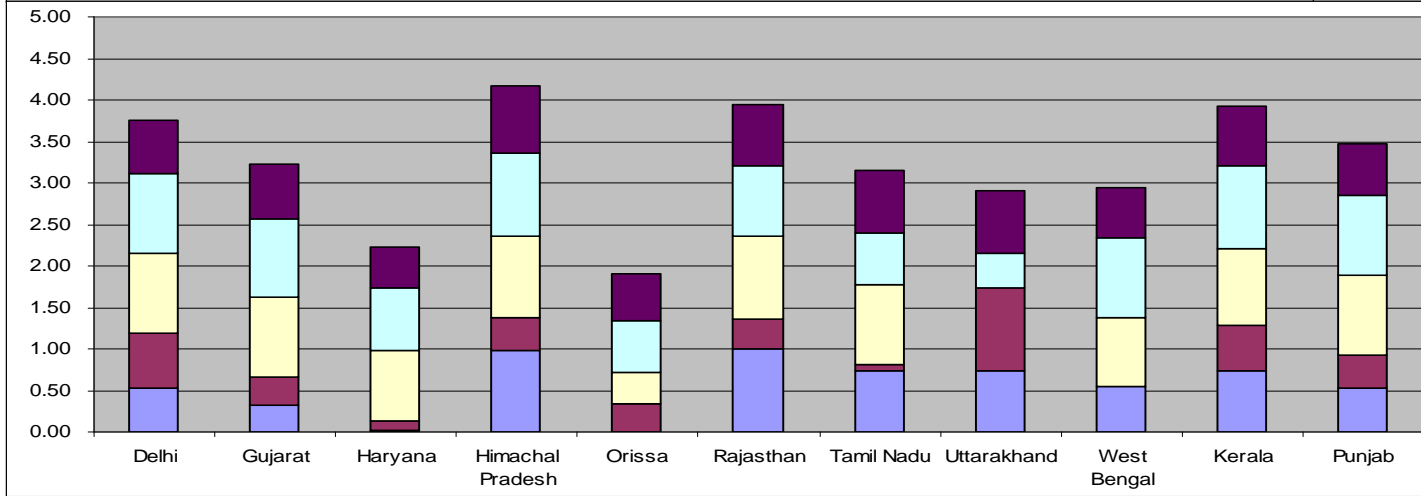
# Preference for the Computerized System (Percentage)



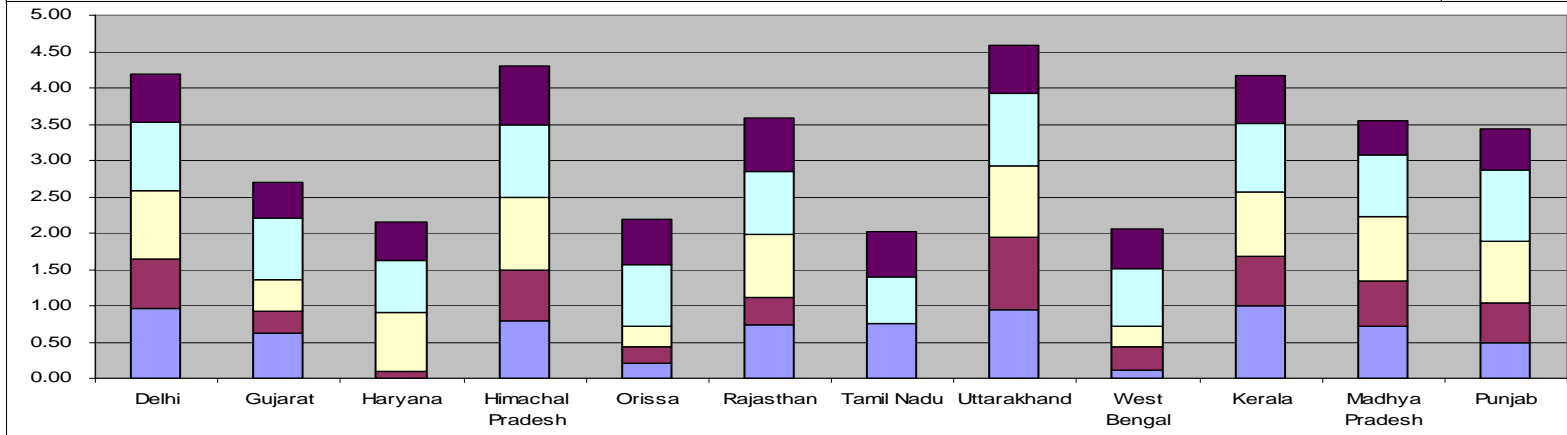
**LAND RECORD**



**PROPERTY**

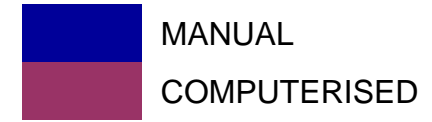


**TRANSPORT**

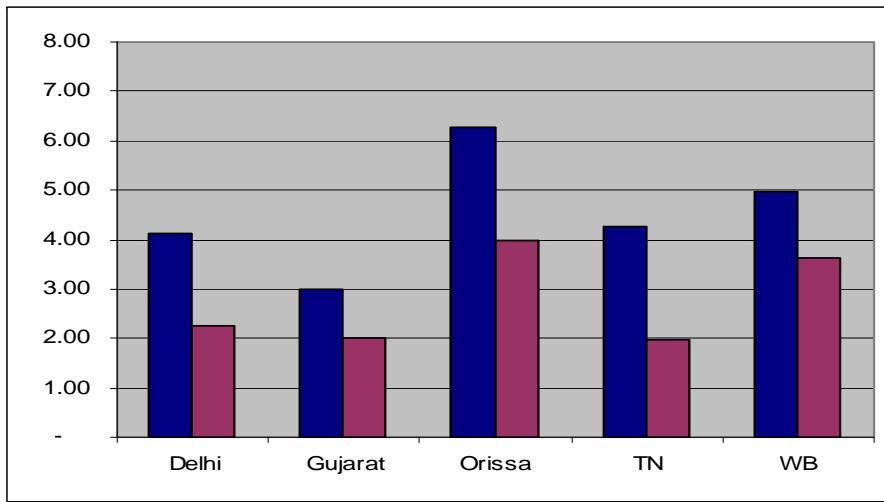


**COMPOSITE SCORE ON 5 KEY ATTRIBUTES**

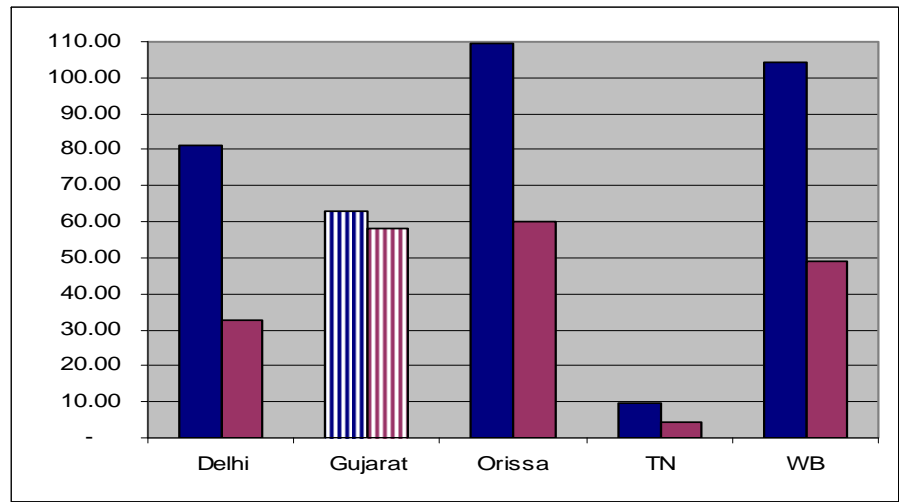
# Impact on Key Dimensions across 5 States in Mutation - Land Record Computerisation



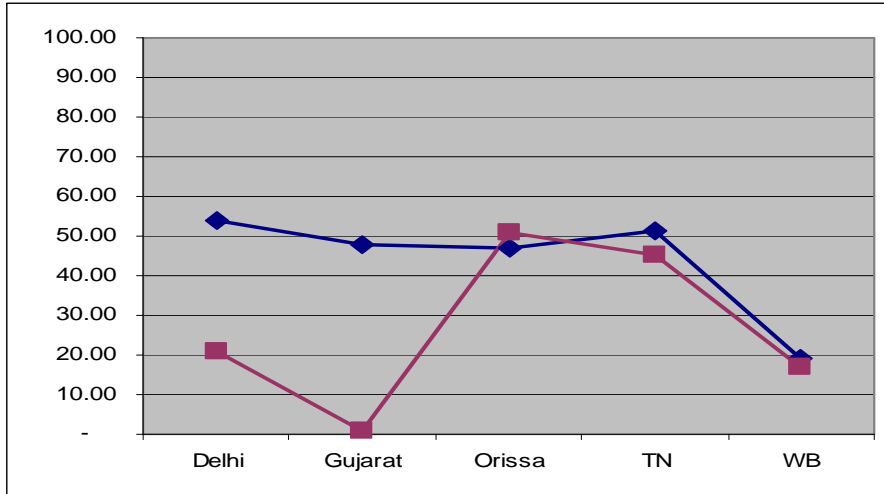
**Number of Trips**



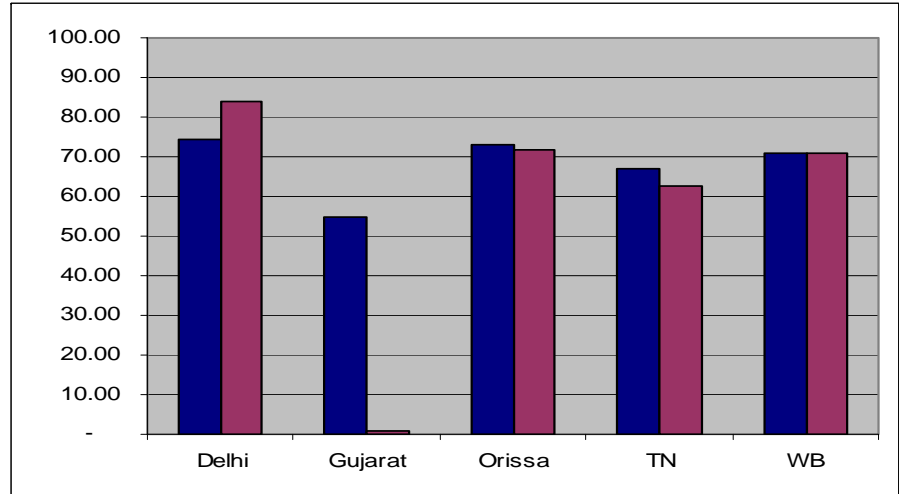
**Elapsed Time (Days)**



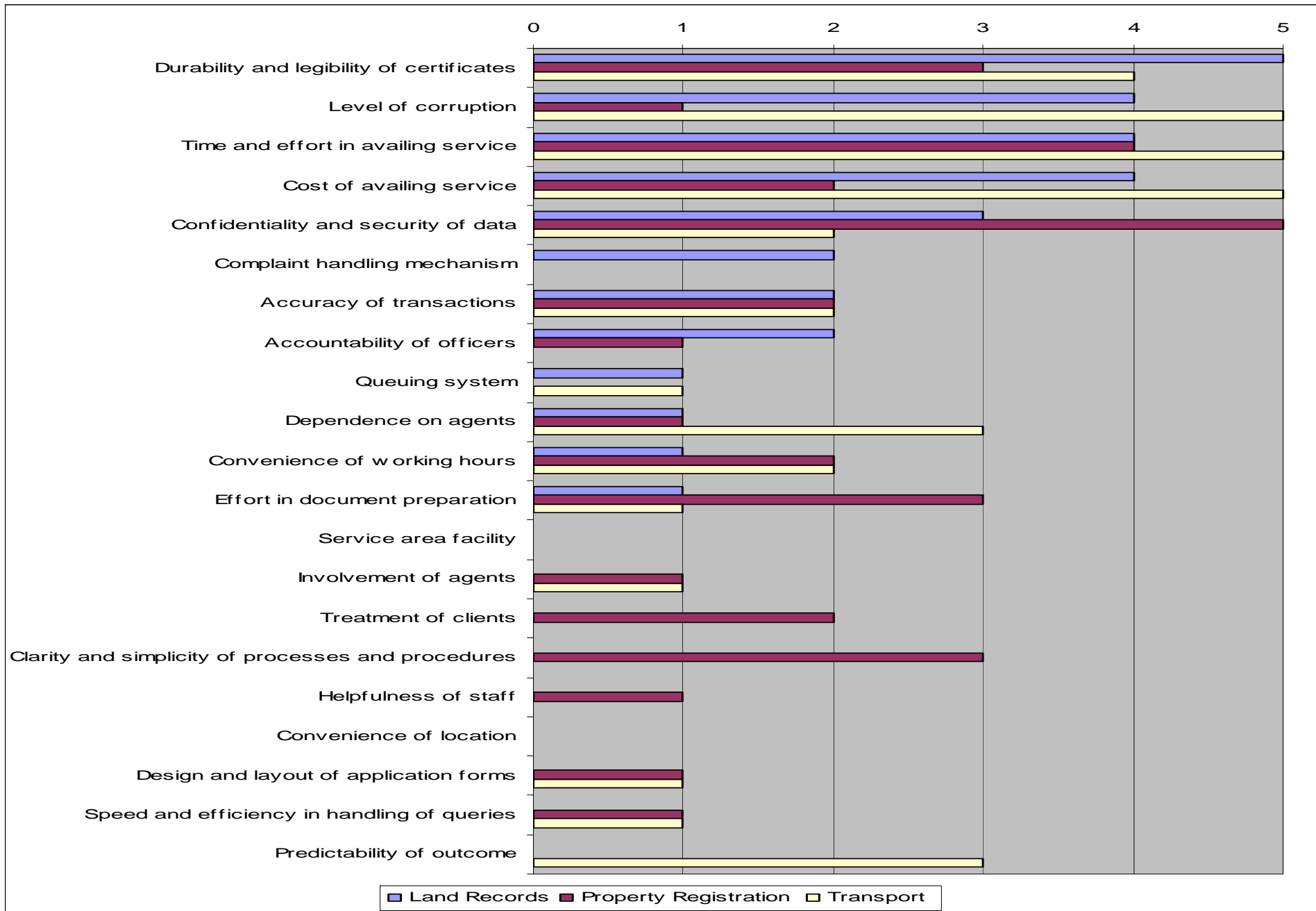
**Proportion Paying Bribes (Percentage)**



**Proportion using Agents (Percentage)**



# Importance of Service Delivery Attributes for the Three Applications



# Composite Score (5-point scale) in Descending Order

## LAND RECORD

Himachal Pradesh	4.40
Rajasthan	4.17
Tamil Nadu	4.00
Uttarakhand	3.88
Gujarat	3.68
West Bengal	3.26
Delhi	3.13
Orissa	3.02
Haryana	2.98

## PROPERTY

Himachal Pradesh	4.22
Uttarakhand	4.04
Tamil Nadu	4.01
Rajasthan	3.91
Kerala	3.90
Gujarat	3.65
Delhi	3.52
Punjab	3.45
West Bengal	3.42
Orissa	3.31
Haryana	2.94

## TRANSPORT

Himachal Pradesh	4.20
Rajasthan	3.92
Uttarakhand	3.62
Delhi	3.60
Tamil Nadu	3.49
Orissa	3.49
Punjab	3.24
West Bengal	3.20
Haryana	3.14
Gujarat	3.00

Much worsened - 1; No change - 3; Much improved - 5

# Impact of National Projects on Key Dimensions

Project	Income Tax Portal (E-Filing)		MCA21 e-Governance Project			Online Passport Services				
	Manual		Online	Manual	Online		Manual	Online		
Number of trips	Individual	1.8	1.6	2.2	PFO	1.6	2.5	2.2		
	Corporate	1.0	0.8		CFC	1.5				
Waiting time (Minutes)	Individual	37.8	26.6	75.0	PFO	29	98.0	88.2		
	Corporate	26.0	16.7		CFC	25				
Elapsed time	Individual	11	8	N.A.	N.A.		43	41		
	Corporate	10	4							
Proportion paying bribes	Individual	4.1	1.9	20.1	VFO	1.4	42.4	48.1		
	Corporate	N.A.	N.A.		PFO	10.8			4.3	4.4
					CFC	4.4				
Governance score (5-point scale)	Individual	3.8	4.0	3.3	4.2		3.3	3.5		
	Corporate	3.1	3.9							
Composite score (5-point scale)	3.9		4.0	4.0		3.1	3.2			
Preference for on-line system (%)	75.0			92.0		59.4	90.4			

<b>Project</b>	<b>Important Attributes for Users</b>		
<b>Income Tax Portal</b>	Level of corruption (12%)	Accuracy of transaction (10%)	Cost of availing service (10%)
<b>MCA21 e-Governance Project</b>	Accessibility to data (20%)	Speed and efficiency of query handling (11%)	Clarity and simplicity of processes and procedures (8%)
<b>Online Passport Services</b>	Queuing system (27%)	Cost of availing service (24%)	Time and effort required to avail service (22%)

# Key Conclusions

- Number of mature projects is very limited. A long way to go in terms of coverage of services/states
- Most projects are at a preliminary stage of evolution.
- Even so, significant benefits have been delivered. Need to push ahead on eGovernance agenda
- Large variation in impact across states and projects suggests:
  - that greater emphasis on process reform is needed.
  - need to learn from best practices elsewhere
  - End-to-end online services are preferred
- Need for strengthening capacity to conceptualize and implement projects.

# Warangal, account opening and payments



