

What Do Citizens Value in E-governance?

Reflections from a Property Registration Computerisation Project

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While e-governance projects are invoked as critical in realising development outcomes, their conception and design are constrained by a focus on short-term efficiency gains. An analysis of the implementation of the Karnataka Valuation and e-Registration project reveals that while it has facilitated convenience and accessibility by reducing the turnaround time of the registration process, it has not reduced information asymmetries or provided assurance of the legal validity of property transactions. This is due to a narrow conception of e-governance which does not seek to alter the incongruities that exist in prevailing state-citizen relationships, in general, and the role of the state, in particular.

Since the 1990s, governments across developing nations have been experimenting with e-governance projects, India being no exception. India's engagement with the use of information and communication technologies (ICTs) in governance has gradually moved from a mere automation of some of the government's internal processes, to using e-governance as a means to improve transparency and accountability within public offices, and increasing the efficiency of public service delivery models. With e-governance initiatives emerging as the avant-garde practice for reforming governance, understanding the nature and extent of changes brought about by them becomes crucial, both in terms of their immediate and long-term developmental outcomes.

Most studies on e-governance share a common belief about the instrumentality of technology in material progress and economic growth (Aygerou 2003; Prakash and De' 2007). These approaches, with their preoccupation with short-term efficiency gains, look at the use and impact of ICTs from the vantage points of infrastructure, accessibility, resources and expenditure. On the other hand, there are approaches where local and embedded factors for implementing e-governance projects and their implications for development are studied from a more social constructivist, human-centred perspective (Madon 2004, 2009; Prakash and De' 2007). Some studies try to combine these two approaches by disentangling the impacts of ICT use on development into a multilevel framework (Harindranath and Sein 2007).

A study by G Harindranath and M K Sein (2007), for example, articulates three levels on which the impact of e-governance projects could be studied: the first level or primary effects indicate a simple substitution of old technology by new, secondary effects denote an increase in phenomena enabled by new technology, and the tertiary effects bring in a new breed of business and social change, based on the use of new technology. Another such framework suggests first-order impacts as those that are considered to be affecting the speed and volume of the processes of computerised services and second-order impacts as more long-term effects of e-governance services that realign the economy, as well as the lives of all stakeholders (De' 2006).

Drawing on the above frameworks, we argue that while the primary-level impacts such as increased speed, volume and efficiency are stepping stones, they do not necessarily lead to sustained positive development outcomes which are transformative in nature, especially in terms of creating enhanced value for citizens.

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As we move beyond studying the immediate effects of e-governance to understand its long-term value for citizens, we also rely more on a people-centred approach to technology adoption and development. In this article, we adopt a capabilities approach to study the Karnataka Valuation and e-Registration (KAVERI)¹ project, an ICT project of the Department of Stamps and Registration (DS&R) of the Government of Karnataka, to assess its long-term impact, decidedly in enhancing citizen's capabilities. The capabilities approach, with its focus on a people-centred approach to development and welfare, is increasingly found to lead to useful insights in studying technology projects. As S Madon (2004) argues, adopting a capability approach ensures the inclusion of a host of hitherto neglected factors, such as the ability of individuals and communities to avail services on the demand-side, along with the supply-side skills, resources, and values of public and private actors involved in project implementation. This approach, by emphasising a user's range of functionings or real opportunities (Sen 1993, 1999; Garnham 1997) is crucial in understanding the second-order or long-term impacts of e-governance projects on a diverse section of the population.

The rest of this article is divided into three broad sections. The first section elaborates the theoretical and methodological underpinnings of the study. The next section provides an overview of the property transaction system in Karnataka within which the KAVERI project is embedded. It goes on to highlight the valued functionings for citizens in the property transaction process and analyse the impact that KAVERI has had in enabling their achievement, leading to enhancing the capabilities of the citizens it serves. Based on this analysis, we argue for better convergence between the state's varied roles to bring positive changes in state-citizen relationships. The last section concludes by recommending a need to incorporate this understanding in the design of e-governance projects to achieve development and governance outcomes that are of value to citizens, especially the marginalised, both in the short and long term.

Research Design

The capabilities approach: This approach focuses on overall human well-being by evoking the concepts of development and justice at the same time. The objective of human development, according to this normative position, is not merely economic growth, but the creation of real opportunities that enable people to achieve their valued ways of beings and doings (Alkire 2005). This refers to actions and activities that people want to engage in, often referred to as valued functionings, that include work, leisure, literacy, health and so on, that together render one's life valuable (Robeyns 2005: 95).

Moving beyond the instrumental narrative of technology that focuses on efficient service delivery through computerisation, a capabilities approach framework can help in appreciating the long-term impacts of such initiatives on the lives of people. This framework consists of two concepts, namely, functionings and capabilities. Functionings refer to the achievement or the

actual living conditions of a person, and capabilities refer to the ability to achieve or the real opportunities to achieve what a person values as functionings (Sen 1993; Zheng 2007). It is this notion of capabilities that takes the question of development beyond immediate living conditions to the broader scope of human freedom, and the conditions that need to be created for achieving one's valued functionings.

In understanding the long-term developmental impact of e-governance initiatives, the capabilities approach provides a useful framework for several reasons. First, it focuses both on the range of ICTs available to individuals, as well as on the ability of the people and existing conversion factors required to generate valued functionings from ICTs (Madon 2004). Second, in recognising interpersonal variations among human beings, the capabilities approach underlines different spaces of equality. This implies that a similar real opportunity might have different impacts on two individuals depending on their existing functionings, or people with a similar set of functionings may not have the same set of capabilities, depending on different personal, social or environmental factors for conversion (Zheng 2007).

Third, without discounting the importance of technology as an important instrument of development, the capabilities approach views technology in its actual effectiveness rather than presupposing an inherent correlation between access to ICT and human well-being (Drèze and Sen 2002). Fourth, by underlining human diversity, the capabilities approach brings out the importance of context and the situated agency of people in the adopting of and adapting to, a range of opportunities and choices enabled by access to ICT goods and services (Madon 2004; Zheng 2007). In our analysis of the potential long-term impacts of KAVERI on citizens, we leverage these critical contours of the capabilities approach for understanding the link between e-governance and development that citizens value.

Case study as methodology: In order to understand the capabilities that KAVERI enables for citizens, we need to understand the processes and the context of the initiative. For this, we consider a case study approach to be the most appropriate, as it allows us to investigate a social phenomenon within its real life context by using multiple sources of evidence (Yin 1984). It is also considered appropriate when a rigorous observation of a heterogeneous population is required by the study (Gerring 2007). We further qualify our approach as an interpretive case study, since it takes into account the subjective understanding of situated agents, involved in the everyday practices of the social phenomenon under scrutiny (Yin 1984). An interpretive case study is a fairly well-established method within the social sciences as well as information systems research (Gerring 2007; Darke et al 1998). G Walsham (2009) has argued that an interpretivist approach is particularly useful in debunking the contexts and processes of information systems. An interpretive understanding is imminent when, as researchers, we attempt to access the meanings that citizens attach to the social phenomena under study (Orlikowski and Baroudi 1991).

The fieldwork for this study was conducted in 12 sub-registrar offices (SROs) across Karnataka. These SROs were selected to

represent all the four administrative divisions of Karnataka. In addition, three sros were selected from Bangalore Urban district, as it accounts for a major share of DS&R revenues. The selection of sros was based on a composite socio-economic development indicator of the taluk where they are located. Referred to as the Comprehensive Cumulative Development Index (CCDI), it consists of about 30 indicators and was adopted by the High Power Committee for Redressal of Regional Imbalances (the Nanjundappa Committee) to identify backward regions in Karnataka. Additionally, the average value of property transactions was also used in the selection. These criteria allowed us to reach offices that were located in taluks/districts with different levels of socio-economic development drawing citizens from diverse socio-economic backgrounds. Table 1 provides details of the sros where the fieldwork was carried out.

Table 1: Details of the Sub-registrar Offices

Division	District	Taluk	CCDI	Level of Backwardness of Taluk*	Average Stamp Duty (2003–04 to 2014–15) [^]
Bengaluru	Tumkur	Pavagada	0.72	Most backward	6,996
		Tumkur	1.18	Relatively developed	20,978
Belgaum	Dharwad	Hubli North [#]	1.75	Relatively developed	45,580
		Hubli South			28,051
		Kalghatagi	0.84	More backward	13,448
Gulbarga	Raichur	Lingasugar	0.63	Most backward	6,142
		Raichur	0.87	More backward	14,314
		Deodurga	0.53	Most backward	14,751
Mysuru	Kodagu	Somawarpet	1.37	Relatively developed	25,350
		Madikeri	1.96	Relatively developed	70,613

CCDI stands for Comprehensive Cumulative Development Index.

* The taluks whose CCDI values are equal to or above one are classified as "relatively developed taluks," whereas the taluks whose CCDI values are less than one are classified as "backward taluks." Among backward taluks, the taluks whose values are in the range of 0.89–0.99 are classified as "backward taluks," the ones in the range of 0.80–0.88 are classified as "more backward taluks" and those with index values in the range of 0.53–0.79 as "most backward taluks" (Government of Karnataka 2002: 166).

[^] Stamp duty is a tax imposed on each property transaction and is calculated as a percentage of sale value of the property being registered. We could access the data on average stamp duty from the DS&R and used it as a proxy for the average value of property being registered under the respective sros.

[#] Hubli North/South divide is not included in the Nanjundappa Report (Government of Karnataka 2002). The CCDI mentioned is only for Hubli.

Source: Nanjundappa Committee Report (Government of Karnataka 2002) and details provided by the DS&R.

The study relies on semi-structured interviews and focus group discussions with stakeholders, as well as observations of citizen interactions with the sros and KAVERI. Interviews with citizens, government officials (including data entry operators) as well as other stakeholders in the system, such as lawyers and deed writers, property market experts, and representatives from non-governmental organisations focused on understanding their interaction with KAVERI and the changes it has brought in the overall property registration and transaction system. In particular, efforts were made to understand the perceptions of these stakeholders on the pre-and post-KAVERI processes and the benefits and problems thereon. Questions used during the interviews included those related to: (i) the level of satisfaction of the citizens with KAVERI; (ii) whether the level of citizen satisfaction is uniform across regions and different socio-economic groups; (iii) if not, what are the variations and why do they exist; (iv) what are the problems that citizens face in the

entire property transaction process; and (v) if and how the sros can help them address these concerns.

A total of 90 interviews were conducted. The respondents included 25 officials in the sros (sub-registrars, first division assistants/clerks and information technology maintenance engineers) and in the state headquarters of the DS&R, 15 operators in the sros concerned with data entry, 15 intermediaries (lawyers and deed writers), 30 citizens, and five experts and representatives of other organisations with interests in property registration/transaction. The interviews were uniformly distributed across the selected sros, although citizens in three sros of Bangalore Urban district were not interviewed. Fieldwork was carried out during March–December 2014. Interview transcripts were closely studied to identify the themes relevant to the study. Along with the field visits, we also referred to relevant secondary sources of data, including the acts and rules, reports of DS&R, as well as media articles related to property registration and transactions.

The Property Transaction System

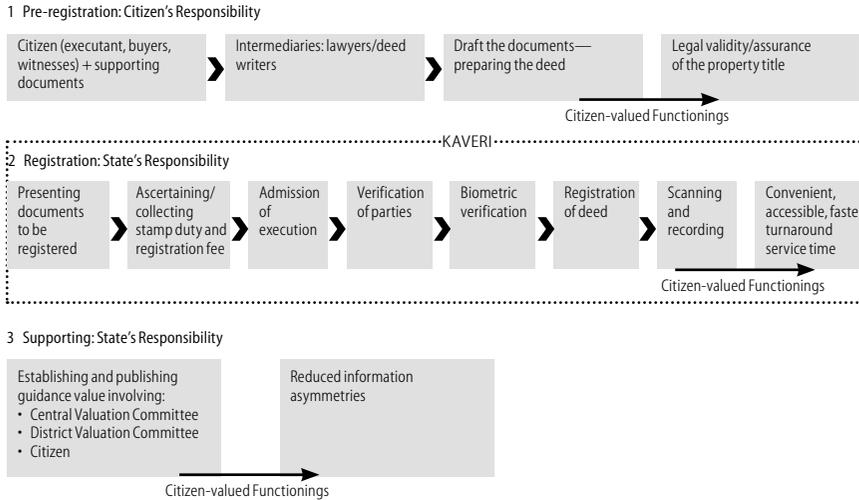
The DS&R, through its network of 233 sros and 33 district registrar offices, is responsible for the registration of various documents involving property transactions, general power of attorney, wills, gifts, mortgage, lease agreement, etc, and to preserve them as public records for posterity. In particular, under the Karnataka Registrations Act, 1908 and the Karnataka Stamp Act, 1957, the DS&R is responsible for registering all property transactions, as well as maintaining and preserving the records of registration in the state. To do so, it levies a registration fee and a stamp duty on property transactions. Since the stamp duty and registration fee incurred on property transactions constitute the bulk of the DS&R's revenue and account for most of its work, the focus of this article is on property registrations.

Broadly, the services provided by the DS&R in registering property transactions can be classified as registration services and information services. The former includes the registration of a document (referred to as the sale deed/agreement for transactions involving the sale/purchase of immovable property) that marks the transaction and the collection of the prescribed stamp duty and registration fee. The latter includes issuing certified copies of registered documents, issuing a certificate notifying transaction and charges against properties, also referred to as an encumbrance certificate, and providing market value assistance by estimating and publishing a market value (popularly referred to as the guidance value) for various types of properties in different parts of the state (Government of Karnataka 2008). Both registration and information services are offered by the sros under whose jurisdiction the immovable properties to be transacted are located.

Launch of KAVERI

The KAVERI application was launched in December 2003 to bring efficiency in the property registration process, while also enhancing the state's revenues from such transactions. With its launch, the DS&R computerised its network of sub-registrar

Figure 1: Property Transaction Process in Karnataka



and district registrar offices across the state. The process of registering a property transaction can be divided into three interlinked steps (refer to Figure 1). KAVERI is the automation of only one of these steps, that is, the actual registration of the document that signals a property transaction. This step (step 2 in Figure 1) includes the presentation and scrutiny of documents required for registering the property transaction, ascertaining and payment of stamp duty and registration fees, verification of the selling and buying party through a process of biometrics capture, registration of the transaction, scanning of registered documents for filing as records, and handing back the original documents to the citizen.

However, prior to the presentation of the document to be registered, citizens interested in buying/selling an immovable property are required to prepare this document (step 1 in Figure 1), also referred to as a sale deed, indicating an agreement to sell/purchase. Drafting a sale deed requires information on the market value of the property to be transacted, registration fee, and stamp duty. It also requires the verification of the property details (ownership, dimensions and nature of property) and ascertaining the prevailing market value which is used to calculate the stamp duty and the registration fee to be levied to complete the registration. The sale deed can be drafted by the individual(s)² themselves, or by a set of intermediaries, usually the deed writers or the lawyers, both of whom are not part of the DS&R.³ It is only after the sale deed has been drafted that it can be presented to the sub-registrar.⁴

Although the DS&R's website provides templates of sale deeds, what emerged from citizen interviews is that deed writers and lawyers are critical in preparing this document. A citizen in Kodagu district told us that:

Without the deed writer and the lawyer [intermediary] I will be standing in the line all the time. I do not have so much time. Also, I do not have most of the information required to prepare the document. The lawyer knows the property rate [guidance value], calculations [computing stamp and registration values] and he also knows whom to contact. (personal interview, 2014)

While most citizens engage an intermediary to navigate this step, the services of the intermediary are not restricted to

the preparation of the sale deed. Intermediaries offer various other services discussed later in this section, for which the citizens pay a service charge, equal to 1%–2% of the transaction value.

A third step (refer to step 3 in Figure 1) that supports both the registration and preregistration steps is establishing and publishing the guidance value of properties. This is critical as it determines not just the value of the property, but also the stamp duty that the DS&R can levy on the transaction. Ascertaining, revising and publishing the guidance value of properties is a long-drawn-out process and is done through a Central Valuation Committee (cvc) constituted by the

DS&R.⁵ Estimating and publishing the guidance value of properties that are being transacted is essential to curb undervaluation of properties. To facilitate the process of arriving at the guidance value and its regular revision, the cvc constitutes Market Valuation Sub-Committees for each district.⁶ Both the cvc and the respective subcommittees are responsible for the estimation, publication and revision of guidance value, usually once a year.

As per the rules under the acts mentioned earlier in this section, arriving at the guidance value should necessarily be a participatory and transparent process that involves the public. As a first step, the subcommittee is required to publish the intention of such estimation or revision, as the case may be, in the local newspapers and also on the notice board of important government offices. A period of 15 days is provided for objections and suggestions from the public. Each subcommittee is then required to prepare a statement showing average rates of agricultural and non-agricultural lands, residential, commercial and industrial sites in the sub-district and municipal or local body area, using detailed guidelines as specified in the relevant acts.⁷

The statement so prepared is once again made available for public viewing and receiving suggestions and objections. Based on the inputs of the general public, the subcommittee finalises the guidance value, which is then approved by the cvc. The approved statements are to be published and made available publicly in all the sub-registrar and district registrar offices. Ascertaining this guidance value realistically is critical to ensure that the state exchequer does not lose out on stamp duty and registration fees due to the undervaluation of properties and that the citizen gets a fair price for the property that is being transacted. To ensure the former, at the time of property transaction, KAVERI invokes the guidance value from its database to ensure that the sale value remains equal to or higher than this value.

Findings and Analysis

There are two provisions in the above-mentioned acts that require critical analysis, as they have far-reaching implications for the benefits that the citizens can derive from a computerised

system like KAVERI. First, in the above process, under the Karnataka Registration Act, 1908, the registering officer is required to verify that the “persons appearing before him are the persons they represent themselves to be.” This translates into the sub-registrar verifying the identity of the person(s) (or transacting parties) getting into a transaction. The offices of the sub-registrar are not legally required to verify the title of the property that is being transacted (for reasons elaborated later in this article). This verification is the responsibility of the transacting parties.

It is this requirement of verifying property titles, coupled with the task of preparing the sale deed that necessitates high reliance on the intermediaries. The transacting parties also rely on these intermediaries for information on the acceptable market value of the property, which constitutes the second provision that requires a critical analysis. KAVERI is restricted to the actual registration process, and does not engage with either the preregistration step or the supporting actions. However, a citizen has to necessarily engage with these other processes as these are intrinsically linked to the property registration process. It is this connection that necessitates the evaluation of KAVERI within the larger spectrum of property transactions.

Drawing on the capabilities approach and an understanding of the larger process of property transaction, our fieldwork sought information on the functionings that the citizens hope to achieve from KAVERI. Interview responses pointed to the following functionings that the citizens valued in property transactions: (i) convenient and accessible service delivery; (ii) reduced information asymmetries in the property valuation process (which essentially translates to having timely and accurate information on the acceptable market/guidance value of the property); and (iii) assurance of the legal validity of transactions/property ownership (Figure 1). The latter two functionings are also likely to enhance transparency and accountability in state–citizen interactions, leading further to participatory governance and inclusive development. The rest of this section elaborates on the functionings citizens value while transacting in property and analyses whether the implementation of KAVERI has provided them the capability set required to achieve these functionings.

Convenient and Accessible Service Delivery

This functioning emphasises an increased efficiency in the registration process and has received the highest attention in prior evaluations of KAVERI. Convenience is seen in terms of the reduction in time taken to complete a property registration and easier access to the various personnel of the DS&R for the services that the citizens seek. Our fieldwork shows that the implementation of KAVERI has helped the citizens with a faster turnaround time, as is evident from the following response:

Earlier [prior to KAVERI], I had to come to the SRO's office many times. Now, with KAVERI, I come on one day to get the sale deed registered. (personal interview, 2014)

Similarly, within the SROs, responses as the one below from citizens and office staff were not uncommon:

What used to take approximately two months in the earlier system, where multiple copies of the sale deed had to be written up manually,

has been reduced to approximately 30–40 minutes, thanks to computerisation. (personal interview, 2014)

The presence of computers has also brought some degree of accuracy and standardisation in the sale deeds. This is further enhanced with the use of biometrics (fingerprints and photographs) to verify the identity of the transacting parties. In addition, the availability of property details makes the preparation of encumbrance certificates easier and contributes to an enhanced service delivery experience for citizens when they want these certificates. Thus, KAVERI does bring convenience to the citizens, especially in terms of a substantial reduction in the time taken for registration, including making copies and returning the originals to the transacting parties. This convenience was expressed and acknowledged by citizens across social groups and regions of the state.

Yet, convenience to the citizens in accessing the DS&R and its numerous office-bearers directly—without going through an intermediary—has not been affected by the digitisation project. Prior to the introduction of KAVERI, registration processes were mediated by intermediaries and the practice continues till date. All our interviewees confirmed that accessing the property registration process without an intermediary is extremely difficult. Despite KAVERI, the process of availing both the registration and the information services at an SRO is mediated either by a deed writer or a lawyer. During our fieldwork in SROs across the state, we repeatedly came across observations, such as the following, about the role played by intermediaries, from the transacting citizens:

They also help us in getting appointments with the SRO [for registration], talking to the sub-registrar and other people [staff] in the SRO office, verification of sale deed and other documents, payment of stamp duty and registration charges, helping enter data from the deed documents into the KAVERI system, verification of the summary sheet,⁸ [capture of] photo and fingerprints on the computer, performing the role of witnesses [if required] and getting the final paper [registered sale-deeds]. (personal interview, 2014)

The intermediaries emerge as critical negotiators between the state and the citizen on several accounts. Not only do they enable a smooth registration process for the citizens, they also negotiate an “agreeable” market value for the property being transacted. Interestingly, even though the DS&R, as per the processes outlined in the previous section, prescribes a guidance value mandated to be available in the public domain, the Karnataka Stamp Act, 1957, empowers the registering officer to question this guidance value.⁹ The registering officer can arrive at an estimated market value and communicate the same to the parties and, unless the parties pay the stamp duty on the basis of such a valuation, the registering officer can keep the process of registration pending, while referring the matter to another officer for determination of the correct market value of property and stamp duty.

In other words, the sub-registrar can exercise discretion in terms of fixing the property transaction value which will be acceptable for registration. It is this discretion coupled with the information asymmetries (discussed later in this article) that exist in terms of an acceptable market value for a property being transacted that necessitates a high intermediary reliance.

Our fieldwork showed that the negotiation process between the SRO staff and the intermediaries is generally carried out before the day of the registration, mostly in the absence of the transacting parties. The sale deed that gets presented for registration is often prepared after this negotiation on the acceptable market value.

Furthermore, it was observed that lawyers are the preferred mediators in relatively developed districts like Kodagu, where the average property transaction values are also relatively higher. Licensed and non-licensed deed writers, in that order, came in for lower average property transaction values in the more backward districts. A choice between the two, it appears, is linked to the socio-economic profile of the citizens, including their literacy, awareness and income levels. Madikeri (in Kodagu district), for instance, had a relatively lesser number of deed writers (compared to Tumkur and Pavagada), which one of our respondents said was “because people here (Madikeri and Somwarpet) are educated and understand the value of engaging lawyers” (personal interview, 2014). This was confirmed by a citizen and a lawyer in Somwarpet (Kodagu district), both of whom were of the opinion that the people in Kodagu have the required economic resources to pay the higher service charges that lawyers command.

While the fee for the lawyers is relatively high, people who can afford it prefer to go through lawyers. It is believed that lawyers are better equipped to trace document history, draft the sale deed, undertake legal verification of property related documents, and help with conflict resolution in case the need arises. This is critical as the state does not assume the responsibility of verifying property titles. Somwarpet (also in Kodagu, but lower in terms of CCRD and average value of property transactions than Madikeri), on the other hand, had more deed writers than Madikeri, although, here too, the reliance on lawyers is high when compared to the other three districts that we covered.

Reduced Information Asymmetries

As outlined in the previous section, the DS&R is responsible for ascertaining, revising, and publishing the guidance value of properties. The acts mentioned earlier mandate that these guidance values be arrived at in a transparent and participatory manner, and then be made available in the public domain through options such as the KAVERI website and kiosks located in the SROs. Though the KAVERI website provides information about guidance values, we noticed that most of the kiosks present in the SROs were either not working or were kept switched off on the premise that “the citizens do not know how to operate it” or “that it will get spoilt.” Furthermore, while the kiosks are expected to display all information in Kannada and English, it was noticed that the display in Kannada was not working, thereby preventing the citizens from accessing information.

Interviews and discussions with both the citizens and officials of the DS&R show that the valuation process continues to be largely opaque to the citizens. While there is a provision to make the draft guidance values available for public scrutiny before finalising, it is still a practice of which most of the citizens

are largely unaware. Also, while KAVERI facilitates publishing of final guidance values (though we did not find any evidence for making them easily accessible to the citizens visiting the SROs), it does not provide any transparency in how the rates are arrived at. Ensuring transparency in arriving at and finalising the guidance values is critical as property valuation is a complex process and needs to factor in a lot of variables.

Data about some of the factors, such as infrastructure development plans or land conversion approvals granted or under process, may not be easily available to the citizens, especially to those who do not have the resources necessary to navigate through an intricate government procedure of accessing many documents spread across multiple agencies. A greater transparency in the valuation process, including deconstructing the final guidance value, is likely to reduce information asymmetries in the property market. The state coming in to reduce information asymmetries would mean enhancing the capability of the individual to engage in a fair property transaction. It would allow the buyer and the seller to ascertain a fair market value, which is a more accurate valuation or assessment of the worth of the property being transacted. This is pertinent for marginal and low-income social groups who often lack the resources to access this information on their own.

In not realising a transparent and participatory process of arriving at the guidance value of properties and in depriving the citizens of the choice to contribute to this process, the state has constrained their capabilities. In not making the guidance value easily available in the public domain (irrespective of how it is arrived at), the state once again curtails a citizen’s choice of direct interface with its various representatives. In the process, the state negatively affects the citizens’ capabilities to access state services and participate in governance processes.

Assurance of Legal Validity of Transactions

The citizens expect that a registration process mediated by the state will provide insurance against conflicting claims made on their property at a later date. Currently, property transactions in Karnataka are deed-based, primarily because the state does not confer conclusive titles to its population. Instead, the state, through the registration of sale deeds, confers presumptive titles to its population, that is, it is presumed that the person paying the registration fee and stamp duty incurred on the transaction of property is the owner.¹⁰ However, presumptive titles often give rise to litigations, with different people furnishing different instruments to contest the title claims (Tiwarei 2010), in turn increasing risk and uncertainty in transactions.

Immovable property (including land) is viewed as an instrument which can enhance financial, physical or human security, especially for the marginal and vulnerable individuals and households that typically do not fall under any social protection net (Norton et al 2001). Classical economists like Adam Smith and Karl Marx attribute a central role to property rights and recognise them as factors of production (de Soto 2000) necessary for economic development. The recent new institutional approach to development economics locates

effective property titles and rights as pivotal to inclusion in development processes and outcomes. In particular, it is argued that effective property titles and ownership rights enhance credit access, especially amongst the poor (Field and Torero 2006).

In the absence of a conclusive property titling system, the DS&R does not take up the responsibility of verifying property titles. Instead, its responsibility stops short at verifying the credentials of the transacting parties and curbing the under-valuation of properties during the registration process. The task of validating property titles falls upon the transacting parties. It is in carrying out this task satisfactorily that the citizens have to again rely on the intermediaries, be it the lawyers or the deed writers. On the one hand, in not verifying property titles, the state necessitates reliance on intermediaries and, on the other hand, it exposes the citizen to property-related frauds and malpractices.

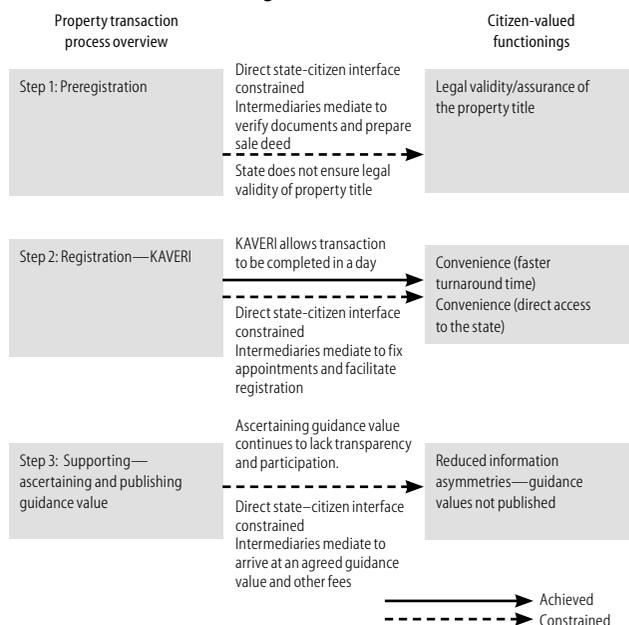
However, over the last few years, efforts have been made to link KAVERI with the digital databases of other government departments in Karnataka. In 2011, it was linked with the record of rights data for agricultural land maintained by the revenue department, and more recently, with the property data maintained by the rural development and panchayati raj department. Provisions have also been made to integrate KAVERI with the property databases of urban local bodies and other government departments, as and when these will be made available in a digitised format. Integrating KAVERI with the property databases maintained by various other agencies can lead to a reduction in the chances of misrepresenting ownership claims and the resulting fraudulent transactions.

Even in the context of presumptive property titles, it is important that the state agencies involved in various aspects of property transaction collaborate and share data to reduce chances of fraud. The linkages that the KAVERI system is forging with other property-related digital databases are of value to citizens and should be encouraged by other state agencies. It can help overcome the current inconvenience that citizens face in interacting with other government agencies to secure documents that are required at the time of registration. It is critical, however, that this integration of databases across government departments derives from a legal sanction through appropriate amendments in the existing laws.

Discussions

As is evident from the above narrative, registering a property transaction encompasses a lot more than just the registration of the sale deed. This necessitates citizen–state interface at various stages. The valued functionings that citizens expect from an e-governance intervention like KAVERI derive from this interface. KAVERI can ensure a long-term impact if it contributes in achieving these valued functionings. Our fieldwork revealed that KAVERI has indeed improved citizens' convenience by bringing about a substantial reduction in the time required to get back the original sale deed and by increasing accuracy in the documentation process. Yet,

Figure 2: Relationship between Property Transaction Processes, KAVERI and Valued Functionings



KAVERI has not been able to bring any significant positive change in citizens' capabilities to achieve their other valued functionings, that is, reduction in information asymmetries in the property valuation process and an assurance of the legal validity of property transactions.

Our fieldwork shows that even convenience is restrained as accessing the property registration process without an intermediary continues to be extremely difficult. As was prior to KAVERI, the intermediary continues to play an important role in the registration process across SROs and social groups in Karnataka. In not providing the citizen the choice to approach the state directly, the state has, perhaps inadvertently, affected the capability of citizens to experience convenience in property transactions through enhanced accessibility. Providing the transacting parties with a choice whereby they can bypass the intermediary if they so desire is critical in promoting the capabilities of the citizens to achieve this valued functioning. Furthermore, the necessity of engaging with the intermediaries and, thereafter, the socio-economic predicament of engaging a lawyer or a deed writer has implications on inclusion in governance processes. This puts a limitation on the capability of citizens, especially the marginal and disadvantaged, who are, first, unable to access the state services without intermediaries even after computerisation and, second, unable to choose the services of a trusted and competent lawyer given their social and economic constraints.

Convenience in accessing the state and its officials for transaction of property is a process that continues to involve non-state intermediaries. They emerge as the sole option for citizens as the state neither assumes the responsibility of validating the legality of the transactions, nor does it actively ensure reduction in information asymmetries, primarily those related to the property valuation process. It is critical for the

state to address these concerns of transparency that are of value to citizens in the property transaction process, especially those from the marginal and disadvantaged social groups who often do not have the resources to navigate its complex departmental structures (Figure 2, p 47).

Conclusions

In this article, we set out to study the implementation of an e-governance intervention to understand the value that it brings to citizens who use it to transact with the state. We adopted the capabilities approach to do this as it offers a better analytical framework for understanding the long-term effects of computerisation, using a people-centred notion of development and technology. Our analysis reveals that the present design of e-governance projects such as KAVERI carries a narrow conception of governance outcomes (and by extension, the role that the state can play in achieving these outcomes). This conception is largely influenced by a utilitarian approach that emphasises first-order impacts or primary effects of computerisation and is, therefore, often concerned with a “simple” substitution of old technology by the new.

While these impacts are not trivial, we argue that long-term impacts of greater value in enhancing capabilities of citizens will require significant realignment of existing structures and relationships in the property transaction processes. Furthermore, the realignment of such structures demands a more meaningful engagement of the state with its citizens, rather than

merely substituting it with automated processes and non-state intermediaries. To bring about positive and long-term social changes through e-governance initiatives, the state needs to better comprehend the functionings that citizens value when they interact with state agencies. This requires a broadening of perspective that will allow e-governance projects such as KAVERI to look beyond the reduced turnaround times for registering a document, for example, and make a positive contribution in ensuring the presence of well-functioning markets and the reduction of information asymmetries, both necessary to bring about a change in the property transaction system that is of lasting value to the citizens.

As noted earlier, not many prior studies of e-governance projects have tried looking at potential long-term impacts and, with the capabilities of citizens as its focus, this article tries to fill this gap in the literature. While the capabilities approach has been widely critiqued as difficult to operationalise, our research design and field study has, however, allowed us to identify valued functionings of citizens in the property transaction process and investigate whether and how the implementation of KAVERI could create the capability set to achieve them across different socio-economic groups.

The findings from this study are also relevant for future designs of e-governance projects. Wherever the focus of such projects is to bring about human development by increasing substantial freedoms, there is a need to incorporate an expanded notion of the state’s role and its relationship with

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citizens, which ICTs can enable effectively. In KAVERI, for example, the role of the state needs to be understood not only as a mere provider of property registration services, but also as a regulator of fair markets in property transactions by reducing information asymmetries and ensuring legal validity of

documents. It is reassuring to note that the new variant of KAVERI does seem to be moving towards incorporating some of these elements into its design. We do hope it will come through a sound organisational and institutional framework, backed by robust legal processes.

NOTES

- 1 The KAVERI project bears a strong resemblance to the SARITA (Stamps and Registration Information Technology Application) project implemented in Maharashtra in the late 1990s. Over the years, SARITA has gone through changes in features. Its latest variant, i-SARITA, was started in 2012 and seeks to provide online facilities for data entry and document submission (Srinivas and Ghatge 2014). Another project that has been implemented to computerise the registration activities is CARD (Computer-aided Administration of Registration Department) which was initiated in undivided Andhra Pradesh in the late 1990s (Government of Andhra Pradesh 2018). This project also follows a roughly similar design principle, though there are implementation-level variations in the three projects to incorporate the preferences of the people and agencies involved and the legislative provisions and administrative practices of the respective states.
- 2 The individual(s) are the executants (seller or the person/s who is/are executing the document), or the claimants (buyer or the person/s who is/are claiming the document).
- 3 Lawyers in general enjoy a higher legitimacy, given their professional training. Deed writers on the other hand are required to be licensed by the DS&R. The licence is given once the candidate clears a written exam and is required to be renewed time and again. However, it was found that many unlicensed deed writers are also operating within and outside the premises of the SROs.
- 4 The presentation of the document requires, apart from the executants and the claimers, a third set of stakeholders, that is, the witnesses. These are individuals who are responsible for identifying each of the executants and claimants.
- 5 For more details, see Government of Karnataka (2016a).
- 6 These subcommittees headed by *tahsildars* (sub-district magistrates), draw their members from the departments of revenue, survey and settlement, public works and the municipal councils or town panchayats.
- 7 For more details, see Government of Karnataka (2016).
- 8 Prior to registering the sale deed, a summary sheet is printed which is to be verified by the parties involved.
- 9 This can be due to variance in the parameters used to arrive at the guidance value and those that actually exist at the site at the time of registration, and can be attributed to presence of new parameters/facilities within/in the vicinity of the property, that may have come up in the time period since the guidance values were set for a particular area.
- 10 Where the state confers presumptive titles, often titles to property are claimed by people through diverse legally recognisable instruments. Usually, it is the sale deed which is used as the prime instrument to claim title to property.

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