

# System for Computerised Registration—SCORE

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## ABSTRACT

With the intervention of —a noble ICT solution incorporating all instruments under Acts for property registration in Bihar, all hurdles in the way of development and implementation have been eradicated and 105 registry offices of the state have been SCORE enabled in the record time of three months with a cost effective Hardware on Hire Basis (HOHB) model yielding increase in state revenue, accrual of 1.5 crores of fund in BICRORE society within 9 months, creating ample job employment, healthy competition amongst the entrepreneurs. Also demonstrates the innovative use of state-of-the-art technologies like finger print biometrics devices, web camera, scanners, etc., excelled in performance sine last one year, completely adapted to the age old govt. working environment and effectively changed the 200 old system of manual property registration. The SCORE system is also exemplary in healthy result oriented public/private collaboration and entire scheme is self-sustainable and verifiable. Moreover, a unique innovative and first of its kind concept in Bihar was adopted by introducing the bank challan for deposit of stamp duties/registration fees/addl. Stamp duties by eliminating the binding of stamp papers only. The cash transaction is completely stopped. The SCORE system facilitates the Online Registration of deeds with following reforms in the business which has not only helped the Registration offices internally but sound in record keeping, search and copy, EC, but acted as an online instantaneous help desk for public in exactly evaluating their properties in terms of required stamp duty, registration fees and requisite enclosures. The monotonous jobs like maintaining so many registers for these documents have been taken care by the SCORE Back Office Computerization.

## 1. Introduction

### *Project conceptualization*

The object of Registration Act is to provide not only a guarantee of the genuineness of the instrument, but also a record from which a person who

may desire to enter into dealings with respect to the property may be able to obtain information as to the title. Registration is mainly designed for the purpose of giving legitimacy to the deed. The most important thing about registration system is that it provides safeguard against fabrication of document of title from time to time and to check fraud and forgery.

The history of the system of registration in Bihar is as old as of presidency of Bengal. At present there are 111 registration offices located at different places of Bihar functioning under the Registration Department. Out of which 38 offices are at district headquarters headed by District Registrars and 73 offices at sub-district level headed by District Sub-Registrars/Sub-registrars, who discharge all the duties of the district Registrar except to hear appeal against his own orders. The administrative responsibilities of department are Registration Act, 1908, Indian Stamp Act, 1899, Societies Registration Act 1960, Partnership Act, 1932, Special Marriage Act, 1954, Birth, Death and Marriage Registration Act 1886, Bengal Mohammedan Marriage and Divorce Registration Act, 1876, Quazis Act, 1880, Parsi Marriage and Divorce Act, 1936, and Indian Christian Marriage Act, 1872.

Main functions of the department includes registration of all type of instruments, administration of the Duties related to Stamp and Stamp Duty including Court fees stamp, Registration of Societies and Partnership firms, etc.

The department earns the *second position* in Revenue Collection in the State. The sources for the revenue are Stamp duty, Registration Fees and Court Fees.

During current financial year 2005–06, Rs. 301.37 crores were collected during the first 6 months, which is more than 50% of the Annual Target of 600 crores.

The manual registration process had its own complications and time requirements. The deeds are generally written by deed writers in different offices, which take at least an hour to prepare it. With the introduction of duplicate system it would consume another one hour. Then the deed is presented before the concerned registering officer. Some clerk checks the Stamp duty and registration fee is revised by another. Then the document is placed again before the Registering Officer. The executants come and admit his execution. Then the document with serial no and deed no. is entered into different fee books and total collection is entered as receipt of the day in the cash book. Generally, the entire fee collected is deposited in the bank next day. Then the document is copied down in appropriate Register Books, indexed and returned to the parties after final endorsement.

The process at a glance seems very simple and effective. But in practice the system of manually copying of deeds in the registers has completely collapsed and utterly failed. All over Bihar there are about 20–25 lakhs of documents still to be copied. The backlog is about 7 to 8 years. An executant who presented his document in 1998 would probably get back in 2005–2008.

Some of the manually copied register books at district headquarters are as old as 100 to 150 years. The papers of the register books have lost their potency. The valuable records of public utility are decaying day by day. This may lead to innumerable litigations in future.

SCORE is an innovative ICT based complete solution for e-registration of properties in Bihar. The SCORE started on 5 September 2005 as pilot project at Patna Registry Office on the universal model of BOOT by ECIL, Hyderabad. Manual registration was completed stopped. Soon, an innovative cost effective implementation model of Hardware on Hire basis (HOHB) was suggested to the Registration Department, Government of Bihar by NIC for implementation of the SCORE. Accepting the perceived efficacy of HOHB model and low cost, simultaneously the Registry Office, Muzaffarpur where pressure of Deeds registry is around 300 per day at peak time is experimented with HOHB. Success was remarkable! Immediately, two more offices Hazipur and Danapur were made SCORE enabled.

After a series of brainstorming sessions with department, finally presentation was made at the level of Hon'ble CM, Bihar showing the factual comparative analysis for BOOT vis-à-vis HOHB. Benefits of HOHB was so dominant and pervasive that Hon'ble CM, Bihar within no time issued a direction that neither ECIL nor any other organization will be allowed to carry out SCORE in BOOT model rather it has to be done with HOHB model.

The decision in this regard was taken in mid March 2006. 14 vendors were identified for implementation of the project on HOHB through open tender. The average monthly rent for a unit comprising of 5 computers, Scanner, laser printer, switch, DMP, web camera, finger print scanner along with OS, Oracle RDBMS, D2K was come up around Rs. 15,000/-. The experiment on HOHB in three Registry Offices resulted that 60 Deeds per day can be easily registered and delivered to the concerned parties with one unit. Likewise, 60 to 140 deeds can be handled by two set of units and more than 150 three units are enough to sustain the load. In HOHB model Rs. 20/- per page was charged from parties to meet the monthly rent for hardware unit, genset and diesel, consumables and stationeries, etc., contrary to Rs. 30/- per page on BOOT model by ECIL.

In terms of these vendors, registry offices could get the human resources. Training programmes for Registrars/Joint Sub-registrars and staff were held. Each vendor identified one technical supervisor to whom NIC gave exhaustive training for replication of SCORE at their designated Registry offices.

Seeing the user satisfaction and augmentation in registry resulting remarkable revenue increase for the state Hon'ble Dy. CM, Bihar directed NIC to replicate SCORE at all 111 Registry/Sub-registry offices of Bihar by 30 August 2006. But, surprise to all, 105 Registry offices were SCORE enabled by the end of July 2006. It will be not an exaggeration that the HOHB model can only do this kind of miraculous project implementation, which was experimented and successfully executed in Bihar contrary to BOOT model executed in Karnataka, Maharashtra and few other states.

In order to sustain this concept of HOHB, BISCORE State level and District level societies were formed which keep track of funds generated by each office against services charge of Rs. 20/- per page. Again, revelation to all, within a span of 8 to 9 months time span BISCORE has record accumulation of Rs. 1.5 crore besides overall increase in number of deeds registry and revenue growth for the state. The deed registry has come up to 10,00,000 per year.

Strategy of Hardware on Hire Basis (HOHB) has proved its worth in healthy growth and development of state revenue. It motivated state entrepreneurs to contribute their share for the state growth, created a competition amongst them towards qualitative service, open up avenues for job employments.

In the entire process Registration Department has not incurred a single paisa. The software is exhaustive and contains all instruments, which are registered in Bihar or any other state of our country.

The enormous accumulation of funds in the BISCORE Societies can change infrastructure facilities and also the work culture of these offices and moreover govt. offices will be self-sustainable. Above all, it will be an **eye-opener** for the Government Sector as far as large-scale ICT public utility project implementations are concerned.

## 2. Project Vision, Stakeholders, Objectives and Services

The vision is to have exemplary e-Governance in the registry offices, complete automation processes with less paper use, to adopt the best practices, to provide the efficient G2C public services, and to have state-of-art record archival system at all registry offices of Bihar.

Study divulged the facts and issues that are most significant with the manual way of registration of deeds are assessment and valuation of the property, calculation of stamp duty and fees, recording of the property in the registers, search and copy, issue of encumbrance certificate, archival of records etc.

Hence, objectives were very touch and challenging:

- Complete stop of manual registration for all instruments
- Design, development of work-flow based ICT solution
- Rapid replication of software solution to all 111 Offices
- Quick delivery of original registered deeds to parties within 20 minutes of time.
- Extensive uses of state-of-art technologies like web camera, finger print scanners etc.
- Simplification, transparency, accountability to be achieved through Business Process Re-engineering (BPR)
- A software solution, which incorporates technologies along with auto-calculation of, stamp duties, additional stamp duties, registration fees and other miscellaneous fees depending upon the location, land type,

local body applicable, construction type, structure type criteria based on market value.

- Time targeted project completion
- Technical support to 111 offices and timely incorporation of amended rules in the software solution.
- Generation of Index I, Index II, Index III, Index IV, daily fee book, monthly fee book, Finger print registers, non encumbrance certificate, search and copy etc.
- Preservation of old records and current scanned documents. And so on.
- Statistical exception reports for DSS and EIS like highest five property registered at particular office, revenue earned for municipal corporation, head wise revenue accrued etc.

### 3. Stakeholders

The stakeholders are Registration Department, NIC Bihar State Centre and the entrepreneurs by public-private partnership through Hardware on Hire Basis (HOHB) model of project implementation.

### 4. Public Private Partnership (PPP)

HOHB (Hardware on Hire Basis) model has been devised for implementation of SCORE Ver. 2.0 for 111 registry offices in Bihar. The concept is that per unit 5 computers (One server, 4 clients) with laser printer, DMP, Digital camera, fingerprint scanner, OS, Oracle) will be supplied by the selected vendor. They will also provide one technical man at each registry offices for immediate services. One unit is meant for those offices where deed registration is within 50 ~ 60 deeds. Similarly, depending upon the deed the units will be multiple in the same ratio. Altogether, 11 vendors have been involved with the restriction that each vendor will be on job allotment for maximum at 10 offices. The average monthly rent has come up around Rs. 15,000/- per month per unit. From public per page @ Rs. 20/- is taken as service charge. For example, at Registry Office, Patna Sadar on 29th June 2007, revenue collection from 241 registered deeds was 1 crore 27 lakhs, similar is the cases with other offices. The number of units is three and monthly rent is Rs. 12000/-. Thus against income 1.27 crore per day and monthly rent for 3 units is Rs. 36,000/-. For, curiosity, for the entire month of June 2007 for above office the revenue collection was around 31 crore. Hence, registration department has not invested a single paise on this project but with small service charges through HOHB the project has been not only self-sustainable but day by day it is improving and becoming smooth.

## 5. Necessity/Needs

### *Manual way of registration was very tedious and time consuming*

Deed writers in different offices, which take at least an hour to prepare it, generally write the deeds. With the introduction of duplicate system it would consume another one hour. Then the deed is presented before the concerned registering officer. Some clerk checks the Stamp duty and registration fee is revised by another. Then the document is placed again before the Registering Officer. The executants come and admit his execution. A receipt is granted to the present the executants put his LTI on LTI Register. Then the document with serial no and deed no. is entered into different fee books and total collection is entered as receipt of the day in the cash book. Generally, the entire proceed of fee collected is deposited in the bank next day. Then the document is copied down in appropriate Register Books, indexed and returned to the parties after final endorsement. The process at a glance seems very simple and effective. But in practice the system manually copying of deeds in the registers has completely collapsed and utterly failed. All over Bihar there are about 60–70 lakhs of documents still to be copied. The backlog is about 7 to 8 years. Executants who presented his document in 1994 would probably get back in 2000–2003.

### *Intentions of the Registration Department towards efficient Citizen Centric Public Services*

The department proposed that entire working of the registration offices should be computerised. The prorated stamp duty, fee, valuation of this properly under transaction would be scrutinised within 5 minutes, which at present 4 hours. Similarly after all the formalities under the law, rules are completed. The whole contents of the deed would be scanned through hardware and a disc with the contents of the deeds shall be kept in a safe place as permanent records. Then the original deeds would be returned to the party the same day of presentation. The system also has to have a database of market value of all the plots/properties in the area in sufficient details. So that checking of the document as to the correctness of the valuation and stamp affixed, which is done manually at present, is done electronically to make it faster and remove subjective description.

### *Archival of old records of 100 to 150 years*

Some of the manually copied register books at district headquarters are as old as 100 to 150 years. The paper of the register books has lost their temper. The valuable records of public utility are decaying day by day. This may lead to numberless litigations in future. Moreover, record room space is also an issue when records are increasing day by day.

The department desired that the old records copied in the register, which take up huge storage space and their permanency is doubtful, should be transferred into electronic/digital form and stored on hard disks/CD-ROM/USB based external hard disks. This will facilitate the record safety and durability. Record traceability will also be instantaneous. The department has the clear cut intentions to have a computerized system which will facilitate workflow based ICT Solution for complete automation of each and every registry offices of Bihar.

### *Complete back office computerization*

As per the statutory procedures laid for registry of document each registry office has to maintain several registers such as book wise index registers Index I, Index II, Index III and Index IV, Photo and Fingerprints register, MVR registers for Land and Structure, daily fee book, monthly concise fee book, various other MIS reports and so on. The Registration Department had manpower crunch and due to that above routine works were not up-to-date and there was huge registered deed laying pending for maintenance in various registers. Seeing all these unending works being pending and somewhere public interest being hampered, there was ample reasons and scope for computerization of back office for better citizen centric services from registry offices.

### *To convert an office as old as presidency of Bengal i.e., 150 years old into a modern, hi-tech, and model offices*

Registry Offices are the only office where activities are very systematic and logical, i.e., to say there is a chain of predecessors and successors. Above all, for one deed registration there are several workflow based activities like presentation of deed, admission of deed, witness details, photographing of parties, having fingerprint impressions of the parties and witness, confession of the parties before registrar at 'Ezlas', registration of Deed, recording the abstract of deed in various registers and finally delivery of deed to party. At all these steps there were human intervention in some form and as a result of which there was heavy dependency on manual processes. Hence, there was need to speed up the processes with active intervention of modern technologies like computers, laser printers, ups, digital camera, fingerprint biometric devices etc. which will drastically cut the time and facilitate quick and error free public services.

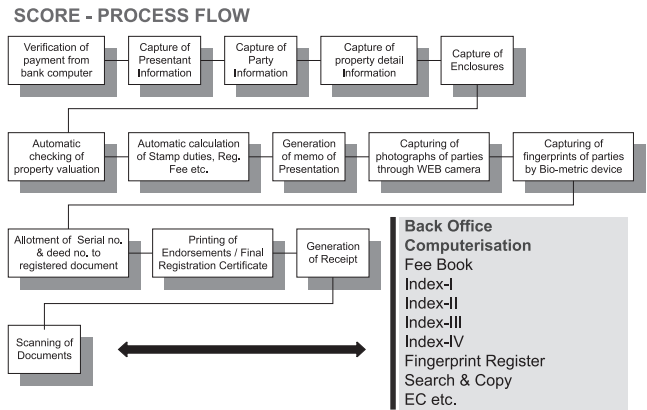
## 6. Project Plan

### *Technology architecture*

**SCORE** (System for Computerised Registration) has been designed and developed by National Informatics Centre Bihar Centre—a premier IT



Fig. 1



organization under the Ministry of Communications and Information Technology, Govt. of India, with a sole objective to provide one-stop non-stop online registration of deeds blended with task accountability as well as process transparency. SCORE has been a user-friendly software package designed on the Windows-based clients/server technology. The database has been on ORACLE8i and the front-end application is on D2K with security feature like user-id, password along with roles and privileges.

In order to run a office of where load of deeds presented 50 to 60 in number, a **Unit** comprising of a P-IV Server with 512 RAM, 80 GB HDD with CD-Writer having Windows 2000 server OS, P-IV clients with 256 RAM, 40 to 80 GB HDD with CD-ROM having Windows 2000 professional, ORACLE 8i and D2K, Laser Printers, DMP, Hindi (TTF) Fonts, Digital Camera, Fingerprint scanner, Duplex Mode ADF Scanner are required. In the similar manner the units will get multiplied with multiplication of number of average deeds.

## 7. Milestones

Increase in revenue and adoption of new PPP model i.e. HOHB (Hardware on Hire Basis) is the significant achievement of the project.

## 8. Project Management Structure

Administrative and logistic supports were borne by BI-SCORE society for replication of SCORE in all Registry Offices. NIC project team is responsible for technical aspects of SCORE. Policy decisions with respect to addition of new features and modules and other category of registration deeds were generally taken by IG Registration, who happens to be Secretary of



the Department. Project coordination committee meets fortnightly and discusses various issues/aspects of the project implementation.

## 9. Implementation

### *Strategy for pilot to roll out*

Pilot implementation of SCORE was carried out at the Patna Registry Office, Patna, with an objective to have direct supervision and control of IG Registration in dealing with the resistances of few stakeholders. As a lot of middlemen were involved in the registration process, a resistance was obvious and some time IG Registration has to be present on site and supervise the processes. There are instances of issue of a large numbers of showcase notices to various stakeholders for not cooperating during the pilot implementation phase. In a challenging environment SCORE was allowed to function, without the parallel run of the manual system.

After the smooth implementation at Patna, it was decided to implement SCORE at Registry Offices at Hajipur, Danapur and Muzaffarpur. Thereafter all District HQ registry offices were covered followed by other sub-registry Offices. These entire roll out took place within record time of 3 months.

## 10. Capacity Building

A number of operational trainings were imparted to Official and staff of all Registry Offices in phases prior to SCORE implementation.

### *Evaluation and measurement*

Due to implementation of SCORE application, revenue due to Registration has been increased many fold for the government. At the same time BI-SCORE society has also earned a lot for managing various infrastructures of the Registry Offices and other other requirements.

## 11. Issues and their Solutions

The experimentation in Registration department, Govt. of Bihar has in terms of ICT based software solution and HOHB model of implementation has compelled many to change their mindsets for BOOT model, which is just a 'LOOT' model where all funds are transferred to the service provider. The graph depicted in Figure 7 above reveals the truth.

On the contrary to BOOT, the present model of HOHB is appropriate to context yielding localization of best practices at the farthest and remotest

area of ICT implementation where it can only be said the '*seeing is believing*' as there are registry offices where no power supply for 24 hours and even a complete year but SCORE system has enlightened the rays of hopes and prosperity by delivering the deeds electronically, timely and bug free to the maximum satisfaction of the public.

Above all, Software solution within the umbrella of HOHB model would be an *eye-opener* for the Government Sector as far as large-scale ICT public utility project implementations are concerned.

The SCORE system in Bihar has gone the tough time of rigorous testing and mind boggling innovative ideas and concepts and documentation like SRS, user manual and other documents have been proved as the 'Bible'—the ready reference for registers for SCORE system.

- Replication in other states  
Not yet
- Road ahead  
Looking into the benefits SCORE accrues to the public and the user department, is has been decided:
  - o To provide incumbency certificate on demand and any time
  - o To interface with land Records system for verifying the genuineness of any deed

## 12. Status and Results

### *Present status*

Registration is mainly designed for the purpose of giving legitimacy to the deed. The history of the system of registration in Bihar is as old as of presidency of Bengal. At present there are 111 registration offices located at different places of Bihar functioning under the Registration Department. Out of which 38 offices are at district headquarters headed by District Sub-Registrars and 73 offices at sub-district Sub-registrars.

## 13. Specific Achievements during the Year 2006–07

All 111 Registry Offices of Bihar was SCORE enabled, i.e., replicated in a record time. There is a significant increase in collection of registry fees across the state. The BI-SCORE society has earned more than 1 crore into its kitty in this single year. For example, At Registry Office, Patna Sadar on 29 June 2007, revenue collection from 241 registered deeds was 1 crore 27 lakhs, a record collection in a day.