National E-Governance Plan Revisited:
Achievements and Road Ahead

Geetika[1] and Neeraj Pandey[2]*

ABSTRACT

India like other forward-looking developing and developed economies has traveled a critical distance in the field of planning and implementation of e-governance in the government-people interface process. This journey has brought many lessons and revelations. The National e-governance Plan (NeGP) is the lead nodal agency for implementing e-governance in India. In the present paper the NeGP has been revisited to take stock of the achievements and shortfalls. The analysis is done on the basis of three-tier structure of NeGP, viz. Central Mission Mode Projects (MMPs), State MMPs and Integrated MMPs. The paper also attempts to look at the managerial, regulatory and institutional challenges faced by NeGP. The analysis is mostly based on secondary sources of information, however, number of interview sessions was held with persons involved in planning and implementation of the plan to go deeper into the challenges being faced. The paper concludes with suggestion to make SMART India through an effective NeGP.

Keywords: E-governance Plan, mission mode projects, E-governance Domain, Common Service Centres

1. Introduction

The success stories of improving service delivery, reducing corruption, increasing transparency, increasing revenue, ensuring cost reduction and empowering people apart from other multiple benefits have reinforced citizen confidence in this information technology (IT)-oriented form of governance (Margetts, 1995; Sawhney 1996). The implementation of e-government projects in developing countries started with the administrative reforms and in priority sectors like banking and telecommunications (Shrestha et al, 2004). The e-government, however has shown comparatively lower success rates in developing countries (Heeks, 2003), but its impact on many functional areas mainly due to its effectiveness and efficiency through cost reduction, timely service and transparency is significant (Taylor, 1992; Jaegar, 2003).

Government of India has allocated US\$ 4.92 billion in budget allocations in the Tenth Five Year Plan (2002-07) for implementation of e-government (http://www.egovonline.net). Further India has proposed the National E-governance Action Plan for implementation during the year 2003-2007 (However it got Cabinet approval on May 18, 2006). The Plan seeks to lay the foundation and provide the impetus for long-term growth of e-Governance within the country. Every government department is expected to invest 2% of its budget on e-government (http://www.mit.gov.in).

---

[1] School of Management Studies, Motilal Nehru National Institute of Technology, Allahabad-21004, India
[2] L. M. Thapar School of Management, Thapar University, Patiala-147004, India
* *Corresponding Author:* (Email: npandey@thapar.edu)

An impact study of e-government projects (Bhatnagar et al., 2007) found that respondents who have used both the manual and computerized systems have indicated an overwhelming preference for the computerized system. The Knowledge Commission (2007) has also emphasized to learn from such successful models and design best practices that are affordable and applicable nationwide to ensure ease of use and interoperability (http://www. knowledgecommission. gov.in).

2. National E-Governance Plan (NeGP)

In order to expand e-government initiative in India, the National e-Governance Plan (NeGP) officially commenced in May, 2006. The NeGP has three tier functional models i.e. the whole work has been split into clearly delineated Mission Mode Projects (MMPs). Each MMP is designed and developed as project mode on a mission basis as reflected in the nomenclature. It consists of three types of MMPs viz. Central Mission Mode Projects, State MMPs and Integrated MMPs. The delineation has been done on the basis of stakeholders/implementing agency basis and the constitutional status of the domain. For Example- Income Tax, Passport, Visa and Immigration are Central Subject as per Indian Constitution so they have been kept under Central MMP. Likewise subjects like Agriculture, Police and Land Records are State Subject, so these domains have been kept under State MMP. The domains which are in Concurrent List are kept under Integrated MMP. Thus the whole NeGP work has been broken into three sets of MMPs to ensure its successful, implementation and monitoring.

Each MMP is to be carried out in four stages viz. Stage I-Conceptualization, Stage II-Design and Development, Stage III- Implementation, Stage IV- Post Implementation. The *Conceptualization stage* is the first stage where the mission is identified i.e. the services to be provided at the government-public interface level using the IT tool. In *Design and Development stage* the services are firmed up after piloting the project in designated towns/departments/ministries. The rollout of the project is done during the *Implementation stage*. It is followed up by *Post-Implementation stage* where the feedback of all stakeholders is monitored, the learning from the programme discussed and necessary changes, required if any, incorporated within the project.

The highlight of the NeGP is to make all Government services accessible through an integrated service delivery mechanism ensuring efficiency, transparency and reliability, at the place, throughout the life, at affordable cost to the common person. NeGP envisages saving cost of providing services in terms of sharing the core and supporting infrastructure, enabling interoperability through standards interalia bringing uniformity in e-governance standards which would result in the citizen having an easy access to public services provided by the Government (ILIS, 2005). As an initial step approval has been granted for establishment of over one lakh internet and ICT enabled Common Service Centres (CSCs). The NeGP framework enables the integration of e-Governance applications by various departments with minimal adjustments by using the platform provided by common infrastructure like SWANs (State Wide Area Networks), CSCs, Data Centres, Electronic Governance Service Delivery Gateway etc. (SWAN Report, 2007). The Department of Information Technology (DIT) has set up a Programme Management Unit (PMU) to assist the apex committee drive NeGP through effective programme monitoring and management and provide assistance in policy and strategy formulation. The PMU also supports the DIT in implementing those projects and components of NeGP for which DIT is the implementing department and also augments capacity of various departments to enable them to implement their Mission Mode Projects (MMPs) successfully.

3. Study Design

The present study is exploratory in nature and looks holistically at India's ambitious NeGP which was initially planned to be started from 2003 but actually started functioning from May, 2006. At the time of the conceptualization, the NeGP had certain vision, scope and objective which were earlier supposed to

culminate in the year 2007 (NeGP period was conceived as 2003-2007). However later on NeGP has been given perpetual status and there is actually no limit of schedule for all the MMPs to be completed. This paper tries to recapitulate the progress during this one year period after formal commencement of the NeGP.

The objective is to revisit the functioning of NeGP in light of the agenda set up by it at the start of the Plan in the Year 2006 and not to be judgmental about effective or ineffective handling or implementation of NeGP. It is more of introspection than a critique. The views of officials involved in the NeGP were also taken to reach conclusions.

The study makes use of multiple sources of data and collection methods including: documentation, observation and guided open-ended interviews. The main benefit of integration of multiple data sources is an increased internal validity of the study. The combination of these different sources of data helps to establish a sound analysis of present status with the targets in a more time effective and cost effective manner.

In the present study firstly, the data was collected from various documents available on line from official website or in print form from reports and research papers; then interview of officials working at different MMPs were conducted and finally the two were aligned to reach the conclusions and draw a line of recommendations. The main goal of the interviews and the document collection was gathering information on the scope of NeGP, its present status of achievements and the constraints faced. This involved as a first step to develop an understanding *of the scope of NeGP*. The interviewees were asked about the present status of NeGP in general and MMP they are associated with in particular. They were also requested to compare the targets with achievements to identify gaps and the major road blocks in effective implementation of NeGP. Interviewees were finally asked to give views on improving the rate of implementation. Table 1 summarizes the major questions covered during interviews.

Table 1: Main topics covered by the interview guide

S. No.	Interview Questions	Objectives

1.	Present status of progress
	    Plan in general
	    A particular MMP
	    Three MMPs compared
	    Domains with a MMP
		To reach a better understanding of the situation and to verify the documented information.

2.	Obstacles in completion of MMPs
	    Legal/ Procedural
	    Social/ Economic
	    Technological
		To identify the main culprit in the effective implementation of the Plan.

3.	Measures to improve the progress
	    Piecemeal work
	    All in one go
	    Time bound manner
		To reach a set of viable recommendations

Information colleted from all the sources has been analysed using qualitative method. Table 2, Table 3 and Table 4 summarize the performance evaluation of three sets of MMPs. Each MMP is analysed on basis of Domains, targets identified for each domain and present status. Finally the Domains are also evaluated to find the stage at which they are presently. These tables are summarized version of our analysis from documented information and interview findings. Finally the findings mentioned in the three tables are analysed in the light of findings from interviews.

Table 2: Central Mission Mode Project of NeGP

Domain	Targets	Present Status	Present Stage *(as on September, 2007)*
Banking	One India One Account for all Public Sector Banks including Electronic Mass Payment System	Services to be firmed up	Stage I: Conceptualization *Whatever progress is seen is on industry initiative*
Central Excise (Custom & Service Tax)	Electronic Filing of Returns, Duties and applications for approvals/permissions; To network 20,000 users in 245 cities using wide area network	e-Payment of custom duties with PNB & UBI at Delhi, Automation of Custom & Service Tax Implementation of National data Centre & WAN, Roll out of Risk Management System	Stage III Implementation: *Work in progress in select locations and areas*
Income Tax	Online Submission of Taxes & all related issue, Taxpayer grievance redressal, Taxpayer correspondence, Allocation of PAN	All India Income Tax Network (TAXNET)*, More* than 500 cities fully covered	Stage III Implementation: *Rollout in all cities in progress*
MCA (Ministry of Company Affairs)	On-line Forms Filing, e-Payment of charges and statutory returns Company registration services	The project has gone live on September, 2006	Stage IV Post-Implementation.: *Review almost complete*
Passport; Visa & Immigration	Application for fresh passport & related issues, Efficient & Effective Handling of Immigration Formalities for all incoming international flights	Online submission of forms & tracking of application status	Stage III Implementation: *Work in progress in select locations and areas*
Pensions	Grievance Handling & Pension Settlement Tracking	Pension Portal developed by NIC launched in March, 2006	Stage IV Post-Implementation: *Feedback under progress*
Insurance	Online issuance of policies on web, To provide automated grievance reporting and redressal facility to customers, To create holistic database of insurance users	Only General Insurance MMP conceived Development of the concept paper underway	Stage-I Conceptualization: *Whatever progress is seen is on industry initiative.*
MNIC (Multipurpose National Identity Card)	Unique ID which may be the basis for identifying and authenticating a person's entitlement to government services and benefits through a single system	Pilot Project has been completed in 13 states at 20 locations,	Stage-II Design & Development: *Pilot Project in progress*
e-Office	All-Intra Government Office Functions	Proposal for development of MMP being evaluated	Conceptualization: *Services to be firmed up*

Source: Various documents and interviews

Table 3: State Mission Mode Project of NeGP

Domain	Targets	Present Status	Present Stage *(as on September, 2007)*
Agriculture	Under ongoing AGRISNET Project; Stage-I and Stage-II for Phase-wise Study	Under AGRISNET, released to 9 State governments. Phase-II under completion	Stage III Implementation: *Rollout in progress*
Commercial Taxes	On-line Application for Registration, E-Filing of	A National level workshop held for firming up MMP design	Stage II Design & Development: *Pilot project to firm up the*

	Returns, Electronic Clearance of Refunds, Online Payment of Taxes, Online Dealer Verification		*services*
e-District	Backend Computerization to enable delivery of high volume G2C services through CSCs. Stage-I : One Pilot District in each state; Stage-II: State-wide roll out	*Core Services Identified*, Initial Pilot Projects in UP (6 districts) and Assam (2 districts); Assessment of model districts completed, BPR study for implementation	Stage II Design & Development: *Pilot Projects across states in progress*
Employ-ment Exchange	*Services not firmed up*	*Backend Computerization almost complete in Maharashtra, Gujarat, AP and Tamil Nadu*	Stage I Conceptualization: *Services to be firmed up*
Land Records	Comprehensive Modernization of Land Records	Phase-I is over. Statewide rollout of 7 states complete, Modernization of Land Records conceptualized (Phase-II)	Stage III Implementation : *Rollout in all states in progress*
Municipa-lities	Issue of Birth/Death Certificates, Payment of Utility Bills, Grievance & Suggestions, Waste Management Services, etc.	Implementation to start from 2007-08 in the category 35 ULBs (Urban Local Bodies). By 2012 i.e. next 5 years 423 ULBs to be covered.	Stage II Design & Development: *Pilot Project to firm up services*
Gram Panchayats	Services identified for citizens and functionaries Issue of Trade Licenses and NoC, House Related Services, Certificate of Birth and Death, Income and Solvency, etc.	States like A.P., Assam, Gujarat, Orissa and Tamil Nadu have started computerization, 3500 crores to be spent in three years	Stage I Conceptualization: *Services to be firmed up*
Police	Creation and sharing of crimes and criminal database, Personal management and inventory control, etc.	Common Integrated Police Application (CIPA) has been implemented at 128 Police Stations of Delhi.	Stage III Implementation: *Phase-wise rollout of CIPA Project in progress*
Road Transport	Vehicle Registration and Driving Licenses	SARATHI (Driving Licenses): *Rollout under implementation in 9 states*; VAHAN (Vehicle Registration) *Rollout under implementation in 9 states*	Stage III Implementation: *Rollout in other states in progress*
Treasuries	Payment of Salaries to government employees, All expenses paid through PLA, Account Reconciliation	Core Committees formed and *draft MMP Plan being revised*	Stage II Design & Development: *Pilot Project to firm up services*

Source: Various documents and interviews

4. Analysis and Discussion

The tabulated information is further analysed in the light of discussions held with officials during interviews. The discussion is presented under the three major dimensions which had formed basis for interviews, viz. present status of the Plan, major obstacles in effective implementation and suggestions to improve the progress.

Table 4: Integrated Mission Mode Project of NeGP

Domain	Targets	Present Status	Present Stage *(as on September, 2007)*
e-Biz	Issues relating to approvals and permissions, reducing the points of contact between the business entities and the Government agencies, standardization of requirement information, Single-window services and reducing the burden of compliance.	Master Services Agreement with the principal partner is pending signature	Stage II Design & Development: *Pilot Project for 25 services for business and industry in progress*
e-Courts	Implement ICT in Indian judiciary in three phases over a period of five years. The project scope is to develop, deliver, install and implement automated decision making and decision support system in 700 courts of Delhi, Bombay, Kolkata & Chennai; 900 courts in the 29 capital city courts of states and UTs and 13000 district and subordinate courts.	Phase I: From 2001-03, 700 city courts in four metros were computerized and during 2003-04, computerization of another 900 courts were undertaken Phase-II: Started in December 2004, 2100 courts to be covered in 2 years, 442 crores approved	Stage III Implementation: *Rollout of Phase II under completion*
e-Pro-curement	e-Government Procurement Portal providing links to stakeholders, IT-enabled exchange linking government agencies on one hand and vendors on the other	In DGS&D, out of 350 items, 200 items are currently covered by e procurement system	Stage II Design & Development: *Pilot project to firm up the services*
Electronic Data Interchange (EDI) For Trade (eTrade)	Electronic filing / clearance of export/import documents by exporter/importer/agents to Customs, Ports, Airports, and CONCOR etc.; e-Payment of custom duties, charges (handling/freight etc.) of Ports, Airports, CONCORetc.; Filing / processing of licenses for DGFT, e-Payment of license fee for DGFT; Electronic exchange of documents between community partners such as Customs, Ports, Airports, DGFT, CONCOR, Banks etc.	EDI implementation in progress at Airports (7 locations), Airlines (20 locations), Apparel/Textile export Promotion Councils (24 locations), Banks (106 locations), RBI, Customs (35 locations), Container Corporation (38 locations), DGFT (33 locations), Export Promotion Organisations, DG Commercial Intelligence/Statistics and Inland Container Depots/Container Freight Stations (47 locations), Indian Railways (1 location) an Port Trusts (13 locations).	Stage III Implementation: *Rollout in progress*
National E-Governance Service Delivery Gateway	Core and common services viz Messaging, Inter Gateway Messaging, Authentication & Payment Gateway Interface, National Services Directory etc.	Expected to be completed by February, 2008	Stage II Design & Development: *Pilot project to firm up the services*
India Portal www.india.gov.in	All government services to be provided through this portal	First version of portal has been launched	Stage III Implementation : *Rollout complete*

Source: Various documents and interviews

Present status of progress

Deliberating on the present status of NeGP, majority of the officials submitted that the present status of NeGP is not up to the mark. Among the three types of MMPs, around which the NeGP is woven, the Central MMP progress is good while State and Integrated MMPs are lagging behind. The timeframe for many of MMPs has not been fixed till now. Even the NeGP has got perpetual status and there is actually no limit of schedule for all the MMPs to be completed. The officials of NeGP feel that coming years are definitely going to be challenging for NeGP as more results of e-governance implementation are expected.

The status of Central MMPs is better than State MMPs in case of performance against targets. Even in Central MMPs not all the domains have reached the desired pace of development, however some of the officials highlighted the success of MCA21, Pensions and land records. Tables 2, clearly depict that only two of the domains under Central Mission Mode Project have completed the three stages and entered the final stage of monitoring. MCA 21 i.e. *Ministry of Company Affairs in the year 2001 Project* and *Pensions* have been fully executed in terms of conceptualization, design & development and implementation. In case of Banking the progress is industry-driven but still in case of basic services, for example-opening a bank account, grievance handling through on-line Ombudsman, etc. have yet not fully materialized.

The MCA21 is being implemented by the Ministry of Company Affairs (MCA). The Project offers availability of all MCA services including filing of documents, registration of companies and public access to corporate information through a secure portal (http://www.mca.gov.in). The objective of the e-Governance program is to improve the speed and certainty in the delivery of MCA services. This improvement is primarily ensured through the mechanism of secure electronic filing (e-filing) and easy online payment options for all the services provided by the Registrar of Companies. Use of Digital Signatures has been mandated to carry out e-filing in conformity with the Information Technology Act, 2000. This NeGP guided MCA21 received the Dataquest IT Path-breaker Award, 2006, and was recognized as a major Government initiative in the field of e-Governance, with use of technology for improving and changing the existing processes, and making life easier for India's business community, investors and aspiring entrepreneurs (http://www.nisg.org). The Pension portal was formally launched on 30th March, 2007, which was actually ahead of schedule (http://pensionersportal.gov.in). The portal has two components one of which is interactive and other is non-interactive. A commendable work indeed as it is in post-implementation phase in a small span of six months but the awareness about the portal and usage rate among the existing pensioners is really going to decide the real success of the initiative by NeGP. Among the State MMPs the employment exchange and Gram Panchayats are the laggards in terms of target setting and follow up. For Example- In case of Employment Exchange, the services have not been firmed up.

Obstacles in implementation

This poser proved to be most interesting as two different viewpoint emerged which one of the interviewee vehemently said "Government process reform in most domains would require extensive changes to law, rules and regulations. I ask is India really ready to undertake such a wide-ranging government process reform." Another said, "I don't see any major hurdle as most of MMPs have been well planned after due deliberations and piloting models. It has got the full support of top leadership and willingness of implementing ministries/departments.'

However deliberating further on the issue some problems were identified for less than anticipated rate of progress. Most of them emphasize that the prime reason is that there cannot be substantial and sustainable output without enough ground changes in legal, procedural, institutional, etc. To quote one of the interviewee, "The NeGP also requires certain degree of readiness i.e. pre-determined service levels and change in laws, policies, rules and regulations to facilitate the change process under NeGP. For Example-taking a print-out of e-land record against the earlier 'Patwari' system needs to be legalized by rule of law of that particular state, as it is constitutionally a state subject. The whole government functionaries have to

put behind this reform process". The NeGP also lays stress on capacity building through integrated efforts between the departments. The fund has been regularly allocated for the purpose. However it has been seen in the past that many of the states have missed out on coordination between agencies for capacity building. Such outcomes may be detrimental for successful completion of NeGP.

The NeGP is going to face multiple hurdles. The biggest hurdle may be achieving the pre-determined service levels through extensive government process reform, which is missing in India in many domains. Government process reform in most domains would require extensive changes to law, rules and regulations. The basic question is India really ready to undertake such a wide-ranging government process reform. For Example- In the case of Urban Local Bodies which is one of the MMP- how far the service levels are going to be changed under government process reforms? How far does the political and bureaucratic mechanisms would put their weight behind this whole government process reforms would determine the degree of success of NeGP.

The other hurdle may be that NeGP does not have the enforceability for the MMPs, neither with ministries/departments nor with the states. Due to centre-state conflict and inter-departmental issues the programme may suffer. What if implementation is not being done in true word and spirit by the implementing ministry/department? For any department, MIT (Ministry of Information Technology) is a peer department and how it can dictate rules over him? These are some of the key issues that need to be addressed by this ambitious IT project.

The NeGP presently has no fixed tenure as it was the case (2003-2007) when it was earlier conceptualized. As a corollary there is no deadline for completion of all MMPs. Also many of the MMPs do not have a deadline as of now. Also in many of domains the services have not been firmed up yet. The reasons for lag in State MMPs have been identified as lack of coordination and agreement of state government with the concerned Ministry of IT/Implementing agency, gap between planning, implementation and monitoring, transfer of official in charge, political turmoil in the state, etc. No doubt the implementing agency is at fault however the NeGP cannot be absolved of the responsibility of effecting speedy pervasive e-governance for government disbursal of services to its citizens.

Measures to improve progress
Therefore, each of the MMP should be given a deadline for implementation. The perseverance and perusal by respective NeGP officials of designated MMP will have strong effect on the concerned implementing agency. The agriculture, land records, police and road transport are comparatively better in terms of implementation of the project. This needs to be done on a time-line basis. "Since IT is all about speedy decision-making, communication and networking, it must be leveraged by NeGP to expedite the MMPs. Tools like videoconferencing, digital signature, conducting frequent meeting in target state capitals by formulating small NeGP teams, etc may expedite the NeGP MMPs" an official quipped.

Government process reforms are also necessary to ensure successful implementation of each MMP. This will entail changes in law, rules and regulations, which at times may be radical. Such changes will need consensus of all stakeholders. The NeGP should, therefore, give wide publicity about its programmes and its benefits-both in short and long term so that the acceptability of e-governance programmes and the changes that have to be made to implement it are well accepted. The PMU or NeGP as a whole must be given enforceable e-governance rights. Once the implementing ministry/department/state commits officially to execute an e-governance project, it must be implemented as per the schedule. The delay or indefinite postponement of any MMP may not only demotivate the concerned NeGP officials but also the people, for whom this ambitious project has been undertaken. They may loose hope and faith on the plan signing off as yet another government gimmick.

5. Concluding Remarks

The NeGP should frame clear-cut targets for each MMP till the rollout of the plan. This should be done in consultation and consensus with the implementing body. This will facilitate the planning, implementation and monitoring of the MMP and thus expedite the process. It will also put pressure on the implementing ministry/department/state to stick to the deadlines and help NeGP to put control mechanism in place. Since the complete schedule will have prior agreement with the implementing ministry/department/state, they may not postpone the e-governance implementation indefinitely. The lessons learnt after rollout of one project should be deliberated and minutes especially the learning gained at each stage starting from the conceptualization till implementation should be deliberated, documented, finalized and then circulated among all the NeGP officials. The final round of deliberations must ensure the presence of top management besides the officials involved with that particular project. The presence of top management not only reflects importance of this exercise but is also motivating and encouraging for the officials involved in the project to come out with achievements, drawbacks, shortfalls, institutional support, etc. The NeGP conceptually is an ambitious revolutionary project with multiple and long term benefits to the nation. However, it will entail lot of changes not only in laws, rules and policies of the government but also the change of mindset-both of the service provider i.e. government and the user i.e. citizens. Also, the Government of India has to constantly guard that NeGP does not dovetail into yet another bureaucratic juggernaut exercise with meaningful agenda and endless timeframe.

References

1. Bhatnagar, Subhash et al (2007) Center for e-Governance, Indian Institute of Management, Ahmedabad, Draft Report Impact Assessment Study Of E-Government Projects in India, DIT, India
2. Heeks, R. (2003), Most eGovernment-for-Development Projects Fail: How Can Risks be Reduced? *Institute for Development Policy and Management*, University of Manchester, UK
3. Integrated Land Information System (ILIS) ,A Concept Paper(2005) Commissionerate of Survey, Settlements and Land Records, Government of Andhra Pradesh
4. Jaegar, Paul T. and Thompson, Kim M.(2003), E-Government around the world: Lessons, Challenges and Future Directions, *Government Information Quarterly 20 329-394*
5. Margetts H. (1995) ' The automated state', *Public Policy and Administration*: 88-103.
6. National Knowledge Commission (2007), Government of India, New Concept Information Systems Publication., New Delhi
7. Sawhney H. (1996) 'Information superhighway. Metaphors as midwives', Media, Culture and Society, 18: 291-314
8. Shrestha, Ram, Kumar, S.,Sharma, Sudhir and Todic, Monaliza (2004), *Institutional reforms and electricity access: Lessons from Bangladesh and Thailand,* Energy for Sustainable Development, Vol.VIII,2004
9. SWAN Program Status Report (2007) , DIT, Government of India
10. Taylor J.A. (1992) Information networking in government, *International Review of Administrative Sciences*, 375-89.
11. http://www.egovonline.net
12. http://www.mit.gov.in
13. http://www.nisg.org
14. http://www.knowledgecommission.gov.in

About the Authors

Geetika is Professor and Dy. Dean (Planning and Development) at M N National Institute of Technology, Allahabad. She has eighteen years of experience of teaching and research and four books and 38 papers to her credit, published in refereed journals, edited books and in proceedings of national and international conferences. Five candidates have been awarded PhD degree under her supervision while two are currently working. She is Principal Investigator of a Major Research Project financed by UGC. Her areas of interest include, Strategic Management, Organisational Behavior and International Economics.