

Strategic Alignment: Learning As an Instrument of Implementation

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Abstract:

Evolution of strategic management has been like a swinging pendulum. Theoretically it has oscillated between perspective external to the firm and internal firm characteristics and methodologically between quantitative and qualitative methods. The rise of resource based view and associated knowledge based view has highlighted the critical need for firms to manage organizational knowledge to achieve competitive success.

Strategic management's singular concern has been the explanation of performance of a firm. Yet its preoccupation with formulation and content of strategies and neglect of implementation has resulted in its inability to satisfactorily explain why certain firms consistently achieve good performance. The knowledge based view offered a promising avenue to address this issue. Yet, even today the role knowledge plays in determining the performance of a firm is not clear.

This paper attempts to bridge these gaps. It aims to show that learning is the instrument which firms use to achieve strategic alignment representing strategic change necessitated by changing environment and business opportunities. Firms which manage successfully the learning process, maintain a consistent attention towards identification of strategic capabilities needed and show a consistent allocation of resources towards the processes which generate and maintain them. These include mechanisms of exchange of knowledge across and within firms and a proactive involvement of customers in determining needs. The paper maps the cognitive architecture and its linkages to strategy process in the firm and attempts to create an operational framework of implementation

Using a case study that documents practices followed by a state public health system to achieve public health goals in advance of other states, the paper contributes to the resolution of the linkage between learning and firm performance. It also creates a tentative integrated model of learning as part of a strategy implementation framework.

This paper addresses the key but much neglected question of strategy implementation by integrating the resource allocation process model, learning and capabilities. It has considerable value for practicing managers as it suggests a solution to achieve successful implementation of strategies.

Key words: Strategy implementation, Learning, Strategic alignment, Resource allocation, Cognitive architecture, operational framework.

Introduction and literature review:

This paper examines the issue of successful implementation of a national health care programme. Health care programmes are strategies aimed to achieve the objectives of national health policy. Implementation as a concept, in Strategic management, has been studied as part of research on strategy content, strategy process, as part of structural contingency theory and is central to development of implementation frame works.

Research has been dominated by content research. Issues related to implementation have been neglected (Hrebiniak and Joyce 2001) or taken as given or implementation variables not considered at all in the study of strategy - performance link (Ginsberg and Venkatraman 1985). Despite the increasing stress on process research in recent times (Patton 2002); research has been fragmented, dominated by formulation issues with limited theory building and empirical testing (Hutzschenreuter and Kleindienst 2006). Resultant outcome is a fragmented, dispersed (Hrebiniak and Joyce 2001) poorly developed and accumulated theory which fails to guide practice (Hutzschenreuter and Kleindienst 2006). Thus there is a felt need for an operational framework of implementation.

This research looks at the processes through which a public health system strategically aligns its activities to changing objectives, leading to service delivery over time. "Strategic alignment" was used primarily in describing alignment of IT systems with business strategy (Henderson and Venkatraman 1999), but alignment, also known as "fit" has been researched in strategic management from the days of Chandler. However, research has been reductionist in approach, considered fit as a static concept, preferred cross-sectional studies, focused on either environment-strategy link or environment-structure link as bivariate linear relationships and failed to incorporate the third set of variables (Ginsberg and Venkatraman 1985).

The Resource based view (Barney 1991), suggests alignment between VRIN (Valuable, Rare, Inimitable and Non substitutable) resources in possession of the firm and its business activities and offers it as explanation for superior performance. Yet RBV has been criticized as being static and suggestions of looking at resources over time have been given to make it more useful (Priem and Butler 2001). This paper uses the definition of resource with VRIN characteristics and looks at their linkages with changing service delivery requirements over time.

The Resource allocation process model (Bower and Gilbert 2005) shows that realized strategy is outcome of an iterative process of allocation of resources and thus fulfils the suggestion of Priem and Butler. Yet it has never linked this iterative process to firm performance.

The rise of RBV also heralded the rise of knowledge as a resource with VRIN characteristics (Grant 2003). Knowledge is created by the process of learning. The role of knowledge in ensuring competitive advantage is established but the exact nature of this role is still not clear (Amin and Cohendet 2004) because learning is not linked to the act of implementation (Moingeon and Edmondson, 1996).

This paper attempts to answer these gaps in various perspectives and generate an operational framework for implementation.

Research design and methodology:

This study was part of a doctoral dissertation which attempted to develop an operational framework for implementation. Aim was to describe and explain what, why and how of the implementation process and develop theory inductively from field work, necessitating use of qualitative methods. (Patton 2002, p 10). Case studies are appropriate as a research strategy for understanding complex phenomenon such as implementation (Yin 2003, p2-3). The unit of analysis was a health care program. Units serving as exemplars based on performance in chosen programmes were used as sample.

National Health care programmes offer a context in service industry and allow study of programmes with standard components and technology in use for delivery of service but in varying local contexts.

Four programmes—Reproductive and child health (RCH), blindness control, vector borne diseases control and tuberculosis control-- were chosen for study. Three states, Tamil nadu, Gujarat and Kerala were chosen based on their performance in these programmes in last five years

For want of time and resources, retrospective histories (Pettigrew 1997) of events over a time frame of minimum 5 years were recorded through interviews of key participants, documents and in some instances, participant observation. The outcome of the transcription was 11 cases at the programme level. This paper is based on the case study of implementation of RCH programme in Tamil nadu.

Data collection

Formal approval for participation in the study was secured. Key participants facilitated identification of other participants for interviewing. Interviews covered people from directorates, field and project units, training institutes, international agency consultants and medical college professors connected with the public health system. 40 unstructured interviews, each lasting one to 1.5 hours and covering the processes of planning, budgeting, recruitment, personnel management, monitoring and evaluation, infrastructure development and services fructified. Secondary data and documents were obtained from the directorate, department of finance, and from the official websites of the government of Tamil nadu.

Research setting:

The national health policy (2002) sets guidelines for states to follow and envisages achievement of Infant mortality rate (IMR) of <30/1000 live births; maternal mortality rate (MMR) of <100/ lakh live births and utilization of public facilities to >75% by the year 2010 under RCH

This research case is set in the state of Tamil nadu in India. Spread across an area of 130,000 sq km, it has a population of 62 million with a density of 480 people/sq km. The decadal growth rate (1991-2001) of the population is 11.72% against an all India average of 22.3 %. It has an overall literacy rate of 73.4% and female literacy rate of 64.4% when compared to 64.8 and 53.7% respectively for India.

Organizational structure:

Directorates of medical education, medical and rural health services and public health and preventive medicine form the back bone of the state's health department. Technical people heading the directorates assist the secretary in formulation and implementation of the health policy. The directorate of public health and preventive medicine is responsible for the implementation of various National and State Health programmes and does it through the rural health system. Rural health system, at the lowest level, consists of a primary health centre with a set of networked sub-centers under its control. Each PHC is linked to a referral unit. A set of PHCs and referral units make a health system at the district level --the basic administrative unit. A large training infrastructure facilitates programmed Training of all staff and medical officers. It includes basic, programme specific and management capacity building courses.

The Reproductive and child health programme:

Population stabilization has been a prime concern in India and the family planning programme, subsuming all components of RCH, was started in 1951. Segregation of components as individual programmes and their reintegration has occurred over time. From 1997, however, it is run as an integrated programme.

The services under RCH can be categorized based on skill levels and facilities required in delivery of service. At low end are the immunization services, followed by health education, ante-natal care, conduct of deliveries, new born care and finally management of obstetric and neonatal complications. The hospital component increases with increase in skill levels required (Table 1a,1b).

Table 1 A Service under the RCH programme:

Component	Services	Category	Place of service	Service deliverer	Outcomes
Maternal health	Ante natal check up	Normal pregnancies	Sub-centre, ICDS centre	VHN	Identification of high risk pregnancies
		High risk pregnancies	PHC	MO, Specialist	Detect complications
	Conduct of delivery	Normal pregnancies	PHC	Staff nurses	Detect complications
		High risk pregnancies	BEmONC	Staff nurses, MO	Manage complications
		High risk pregnancies	Referral Units	Staff nurses, Specialists	Elective Cesarean operation
	Post natal check up	Normal pregnancies	Sub centre	VHN	Detect complications
		High risk pregnancies	PHC	MO, Specialists	Detect complications

Table 1B

Component	Services	Category	Place of service	Service deliverer	Outcomes
Child health	New born care	Normal babies	Sub centre	VHN	Detect complications
		High risk babies	PHC	MO, Specialists	Detect complications
		High risk babies	Referral Units	Specialists	Manage complications
	Immunization, Growth monitoring, promotion of use of ORT, Tackle respiratory diseases	All	Sub-centre, ICDS centre, PHC	VHN,MO	Development of child, Health education of mother
	School health	All	Schools	MO and Staff	Detect disease conditions
Adolescents	Counseling	All	Schools	VHN, Link workers	Health education
Women	RTI/STI clinics	All	PHC	MO	Detect disease conditions
Family welfare	Contraception	All	PHCs,	VHN, MO	Lower fertility

Performance under RCH:

Tamil nadu, in 2006, had achieved the two objectives of ≤ 30 (IMR) and < 100 (MMR) as envisaged in the national health policy (2002) under RCH. It had a birth rate of 15.8; a death rate of 6.1; an IMR of 30, and an MMR of 90. Except for the state of Kerala, which had achieved these objectives much earlier (IMR of < 30 IN 1987; MMR of < 100 in 2004), other states are well behind these targets (table 2).

Table 2: Comparison of key indicators

COMPARISON OF KEY INDICATORS FOR STATES IN					INDIA			
	1999-2003		2005	2005	2005	2003	2004	
STATE NAME	LEB (M)	LEB(F)	BR	DR	IMR	MMR	TFR	
Kerala	70.9	76	15	6.4	14	110	1.7	
Tamil nadu	64.3	66.5	16.5	7.4	37	134	1.8	
Andhra Pradesh	62.2	64.8	19.1	7.3	57	195	2.1	
Himachal Pradesh	65.8	66.6	20	6.9	49	301	2.1	
Maharashtra	65.2	67.6	19	6.7	36	149	2.2	
Punjab	67.6	69.6	18.1	6.7	44	178	2.2	
West Bengal	63.5	65	18.8	6.4	38	194	2.2	
Karnataka	62.9	66.4	20.6	7.1	50	228	2.3	
Orissa	58.6	58.7	22.3	9.5	75	358	2.7	
Gujarat	62.5	64.6	23.7	7.1	54	172	2.8	
India	61.8	63.5	23.8	7.6	58	301	2.9	
Assam	57.8	58.3	25	8.7	68	490	2.9	
Haryana	65	65.6	24.3	6.7	60	162	3	
Madhya Pradesh	57.2	56.9	29.4	9	76	379	3.7	
Rajasthan	60.7	61.8	28.6	7	68	445	3.7	
Bihar	61.6	59.7	30.4	8.1	61	371	4.3	
Uttar Pradesh	59.6	58.7	30.4	8.7	73	517	4.4	
SOURCE	CENTRAL BUREAU OF HEALTH INTELLIGENCE						GOI	

The table on comparative data (table 3) over time for select states indicates that Tamil nadu has consistently performed well over time resulting in achievement of RCH programme objectives.

Table 3: Comparison of key indicators across states (Source Survey data GOI)

Year	BIRTH RATE			INFANT MORTALITY RATE			TOTAL FERTILITY RATE		
	Gujarat	UP	TN	Gujarat	UP	TN	Gujarat	UP	TN
1972	38	43.2	32.4	128	202	121	5.6	6.6	3.9
1975	36.8	43.1	30.7	154	198	112	5.1	6.6	3.8
1983	34.2	38.4	27.9	106	155	87	4.2	5.8	3.3
1987	30.8	37.9	24.0	97	127	76	3.6	5.5	2.6
1992	28.1	36.3	20.7	67	98	58	3.2	5.2	2.2
1997	25.6	33.5	19.0	62	85	53	3	4.8	2.0
2004	24.3	30.8	17.1	53	73	41	2.8	4.4	1.8

The next part of the paper attempts to find answers as to why TN did better than other states

The Operational frame work for Implementation:

The management of the RCH programme, in Tamil nadu can be divided into three Phases.

“In the RCH programme, there are all the initiatives for reducing MMR and IMR. In Tamil nadu we decided to prioritize based on state problems. For eg: prior to RCH, we concentrated on Acute Diarrhoeal diseases in children and focus area was ORS (oral rehydration solution) programme. Later, once RCH was started, the focus was on reducing MMR and now the focus is on reducing NMR.” (Dr Jayanti, consultant UNICEF).

Each phase signifies focus on different components of the programme although all services are rendered. The focus determines the key service delivery mechanisms and the corresponding requirement of activities and infrastructure (Table 4), enabling the identification of key resources.

Table 4: Identification of service delivery mechanisms in each Phase

Time period	Objective	Programmes	Key Services of area of focus	Key Service deliverer
1982-1996	Tackle child mortality	Child survival and Safe motherhood; Universal immunization programme; ORT	Immunization coverage, Management of childhood diseases, ART, ADD	VHN Medical officer
1996-2005	Tackle maternal mortality	Reproductive and child health phase I and II	Maternal care, emphasis on institutional deliveries, management of high risk pregnancy conditions like gestational diabetes, AIDS and anemia. MTP, new born care and immunization	VHNs Staff nurses Medical officers Specialists
1996-2007 and onward	Tackle neo natal mortality	Reproductive and child health phase II and new born care	Maternal care, emphasis on institutional deliveries, management of high risk pregnancy conditions, high risk babies; medical termination of pregnancy (MTP), immunization	VHNs, staff nurses, medical officers, specialists

The identification of key resources:

The key category of staff is doctors for all services. Next in importance are the skilled staff nurses and ANMs/VHNs.

“People link availability of doctors and medical services. Availability of doctors for services is most important. In case of staff nurses and ANMs, not just availability but they must be skilled to provide services. People will avoid centres where staff keeps referring all cases to district hospitals as going to it is additional cost. That way having a skilled staff nurse is important. Staff nurse is better skilled to manage medical problems and identify complications early. So we have switched over to staff nurse than ANM. We have seen wherever staff nurses have been posted, the deliveries have increased.”(Dr Padmanabhan, DPHS, Tamil nadu).

Identification of key staff influencing delivery of services is also linked to skill development in case of village health nurse (VHN) and staff nurses. In Phase I, key services were delivered by VHN and Medical officer (MO). From phase II onwards, role of staff nurses and specialists increases. Thus, without diminishing the utility of VHN and MO, specialists and staff nurses got added to category of key resources (table 4).

Management of key resources:

In each phase, the initiatives were designed to address issues relating to services being rendered at that time and manage the effective functioning of identified key resources. The initiatives taken can be categorized as development and up gradation of infrastructure, Introduction of new and strengthening of existing services, part of feed back and monitoring systems and facilitation of staff working.

Development and up gradation of infrastructure:

Sanction and building of new PHCs, sub-centres and taluk hospitals has been a regular feature (table 5). Maximum expansion occurred during the period 1985 to 1991. In 1994 Tamil nadu medical services corporation was formed to facilitate better management of purchase of drugs and consumables. By 1998, the drug distribution system was put in place. From 1999, infrastructure up gradation represented more of facilities and equipment along with staffing to facilitate increased services and better delivery of existing services. This included the up gradation of PHCs, operationalisation of 24*7 PHCs, BEmONC & CEmONC (basic and comprehensive emergency obstetric and neonatal care) and referral centers.

Table 5 : Expansion of infrastructure and up gradation of facilities

Year	PHCs	SCs	24*7 PHCs	Upgraded PHCs	VHN	MO	Staff nurse
1985-86	436	5860					
1989-90	1386	8681			8681		
1995-96	1417	8681			8681	2700	
1996-97	1418	8682			10336	2700	
2000-01	1410	8682	90	24	10593	2700	270
2004-05	1413	8682	241	120	10593	2896	723
2005-06	1415	8682	736	130	10593	3089	2208
2006-07	1417	8682	956	130	10593	3089	2878
2007-08	1417	8682	1156	205	10375	3266	3500
source	Policy notes of department of health and				family welfare		

This ensured a well developed infrastructure, essential for service delivery, along with improved and easier access to facilities. The expansion of capacity in medical, paramedical and nursing student's intake made available skilled and adequate trained staff for intake to man the infrastructure and effect service delivery (table 6).

Table 6: Expansion in medical and Para medical courses intake

COURSE	NUMBER OF SEATS AVAILABLE EVERY YEAR						Staff provided
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	
MBBS	1515	1565	1565	1605	2055	2055	Medical officers
POST GRADUATE	892	886	886	902	889	889	Specialists
NURSING	2340	3340	3340	3695	3700	3830	Staff nurses
PHARMACY	1736	1740	1740	1756	1997	2106	Pharmacists
LAB. TECHNOLOGY	2700	2700	2700	2700	2700	5000	Lab technicians
ANM/VHN training	200	200	200	200	200*	200	ANM/VHN
	* present capacity can be scaled up to				400		

Facilitation of staff working:

The health system has always ensured, through centralized monitoring of personnel matters, effective management of vacancy position especially for key categories of VHN, MO and lately staff nurses.

“We have avoided keeping vacancies. In no system of ours you will see vacancies more than 10%” (Dr Padmanabhan, DPHS, Tamil nadu)

VHN mobility training was introduced to impart mobility in her service delivery, facilitating access and saving time. Posting and transfers of staff is done every quarter through counseling to enable staff to get posting of choice. Staff is regularized as per rules and dues are paid regularly. Good work is recognized

and rewarded. Training is used as an incentive for good performers. A policy ensuring that specialists are posted only to referral centers has been implemented.

Development of staff:

Staff nurses have been deployed in PHCs to render emergency services round the clock. Posting in obstetrics and pediatrics disciplines as part of regular training and 3 weeks training in emergency procedures is ensured to facilitate operationalisation of BEmONC centres.

“We have learnt that it is not possible to depend upon professional doctor to render services at the PHC. So we have decided to depend more on trained and skilled staff nurses. We are trying to upgrade skills, not routine, but to a higher level to handle emergencies.” (Dr Padmanabhan, DPHS, Tamil nadu).

Management of shortage of key staff:

The out turn of VHN, MO, and Staff nurses is adequate to ensure availability of candidates for filling up vacancies in these cadres.

“We try to innovate. The problem we have is shortage of specialists. We get a lot of MBBS graduates enrolled in employment exchanges. So we are training raw graduates and using them. We train them in obstetrics and pediatrics and try to post them at PHCs.” (Dr Padmanabhan, DPHS, Tamil nadu).

Shortage of anesthetists is overcome by hiring from private sector and training MBBS doctors in anesthesia. They are posted in CEmONC centers to make them functional.

These two sets of initiatives ensured that appropriate facilities and adequate staff were available for service delivery. To ensure that key resources were well equipped with skills, the training mechanisms and institutions were strengthened under DANIDA (Danish international development assistance)

Training and flow of skills

“The success of Tamil nadu has to a large extent depended upon the mechanisms by which skills were transferred and how systems got developed. Tamil nadu tied up with training institutes to develop and transfer skills. The pilot initiatives in projects like DANIDA, allowed learning and monitoring. Monitoring and evaluation systems were developed under DANIDA and later extended to all districts.” (Dr Jayanti, consultant UNICEF).

Training is a key mechanism in management of these key staff. This involves flow of managerial and technical skills. The creators of these skills have been teaching institutions (medical and nursing colleges) for technical skills (see table 7 and 8). For managerial skills and concepts, creators have been international agencies like DANIDA and the health administrators themselves (see table 9). These skills are exchanged to reside within trainers in training institutes and district training teams. They transmit these skills to the front line staff for use in service delivery. The training institutes have a regular system of doing field evaluations to check for transfer of skills and concepts and taking corrective actions.

This inter-linkage between the creators, the depositories and end users of these skills along with the transmission mechanisms represents the cognitive architecture (Amin and Cohendet 2004) of the health system. The initiatives under training, facilitated equipping of staff with appropriate skills, in line with the services being rendered and added in each phase. This required that the health system coordinate the identification, flow and assimilation of these skills over time through evaluation, feedback and correction. The tables 7,8 and 9 depict the components of the cognitive architecture for the actual skills transferred and the impact of their use.

Table 7: Flow of technical skills and mapping of architecture for flow.

Initiative,	Creator of know-ledge	Exchange-mechanisms	Storage place	Trans-mission mechanisms	Retrieval and usage by	Actions taken	Impact
Quality ANC care	Medical colleges Inter-national. agencies	Courses at medical colleges nursing schools, training courses	Trainers at training centers core trainers Super-visors	Training courses, field sessions On site teaching	VHNs Staff nurses Super-visors MOs, Specialists	Identification of high risk mothers, Screening for gestational diabetes, AIDS, health education of mothers on nutrition and baby care	Better nutritional status in pregnancies , better motivated mothers for adoption of contraception
Emergency care services, Training in blood grouping and MTP	Medical and nursing colleges, UNICEF	Courses at medical colleges, nursing schools, training courses	Specialists , Staff nurses at FRU Core trainers and training institutes	Training courses, field practice sessions On site teaching by supervisors	Staff nurses Medical officers	Ensure 24 hours availability of staff, management of all emergencies	Lesser referrals from PHCs, Higher skill levels of staff at PHCs Including medical officers
MOs Training in anesthesia	Medical colleges	Training at medical colleges	Trained MOs		Trained MOs	Management of emergencies at FRU	Management of emergency operations

Table 8 flow of technical skills and mapping of architecture for flow

Initiative,	Creator of knowledge	Exchange mechanisms	Storage place	Transmission mechanisms	Retrieval and usage by	Actions taken	Impact
New born care	Neonatology units ,MCs UNICEF	Training programmes Documents	Trainers at training institutes	Training courses in field, district level trainers	Community link workers, VHNs, staff nurses, MOs and specialists	Identification, referral and Management of high risk babies, Health education for mothers	Reduced neonatal mortality rates
Emergency obstetric care	Medical colleges, UNICEF	Training programmes Documents	Trainers at training institutes Teachers at nursing colleges	Training courses in field, district level trainers Nursing colleges	Staff nurses Medical officers Specialists at referral units, VHNs	Identification of high risk mothers, Emphasis on institutional deliveries Education of community Referral transport system, functional referral units	Reduced maternal mortality rates
Process of Immunization	WHO	training programmes	Trainers at training institutes	Training courses in field, district level trainers	VHN	health education for mothers, out reach coverage	reduced child mortality
Health education	international agencies	training programmes	Trainers at training institutes	training courses at institutes, field level courses	VHN, Staff nurses	health education for parents, adolescents	increased awareness

Table 9: Flow of managerial skills and mapping of architecture for flow.

Initiative	Creator of knowledge	Exchange mechanisms	Storage place	Transmission mechanisms	Retrieval and usage by	Actions taken	Impact
Verbal autopsies of maternal and child deaths	UNICEF	Training of trainers, administrators Pilot project	Administrators, training institutes	Training courses, Documents	Medical officers and staff, field unit administrators	Monitoring of process, analysis of data generated	Corrections in service delivery.
Rationalization of specialists posting	Analysis of verbal autopsies, administrators at head quarters	Meetings, documents	Administrators at headquarters	Documents	Administrators	Policy of posting only at referral units	Functional referral units
Functional referral transport	Administrators Analysis of verbal autopsies	Meetings, documents	Field level administrators	Documents	Field level officers, and administrators	Management of vehicles Creation of awareness in public Link with detection of emergencies	Reduced morbidity and mortality of mothers and children
Vital events survey	DANIDA	Training of trainers, staff, officers	Training institutes,	Meetings, documents and training courses	Medical officers, staff	Conduct of regular field surveys	Validation of field data, better inputs for planning.

Strengthening of feedback and monitoring systems

Existing systems of monitoring and feed back involved reports, field visits, field surveys by bureau of health intelligence and review meetings.

Introduction of verbal autopsy for maternal deaths was a mechanism intended to identify weaknesses in the service delivery system of maternal care and give an indication of skill levels of staff. It ensured absolute reporting of deaths and validated field data on maternal services. The continuous analysis of such cases has led to introduction of the assured referral transport system, the policy of rationalizing posting of specialists to ensure effective functioning of referral units, training of medical officers to undertake medical termination of pregnancy (MTP) and training of all staff in blood group matching to reduce delays in transfusion.

Exit interviews of people coming to programmed specialty out reach camps, field visits and community meetings allowed identification of needs of the community. Vital events surveys and surveys carried out by the state bureau of health intelligence enabled collection and validation of data on key indicators used in planning of services.

“The state health information and reporting system is well developed and established. The stress on MMR initiatives has ensured regular and consistent reporting of maternal deaths. So MMR data is highly reliable. The reporting in family welfare activities is consistent and reliable.”
(Dr Jayanti, consultant UNICEF)

Initiation of initiatives and their management:

The concept or initiative can have origin within the organisation or outside it, but it is the health administrators in the public health department whose role is to evaluate their utility and provide impetus to them.

“My role is to find some evidence and with that send a proposal to the government and try to convince them. Once it gets accepted, it will get implemented.” (Dr Padmanabhan, DPHS, Tamil nadu)

International agencies like DANIDA, UNICEF help in transfer of concepts, knowledge and skills and development of systems. It is the state’s initiative to use them for their priorities.

“This has been successfully utilized by Tamil nadu, be it DANIDA, IPP 5, UNICEF or RCH I. The state government is very receptive to initiation and implementation of concepts and so agencies help it by identifying gaps in systems, addressing them with initiatives and pilot projects and scaling these pilots to state level initiatives.” (Dr Jayanti, consultant UNICEF).

Discussion:

The study attempted to look at the reasons why Tamil nadu was able to achieve objectives of the RCH programme well in advance of other states in India. The state adopted a focused approach to a programme involving multiple components and diverse requirements. The state health system’s initiatives were addressed to manage the continuous availability of skilled key manpower as a strategic resource to enable effective service delivery. The VHN, MO, staff nurse, and specialists were identified as key resource as they were involved in service delivery of key components of maternal and child care, be it immunization, or ANC or conduct of deliveries or management of complications and high risk cases. There fore as a resource, they were valuable. They can be considered rare, non substitutable and inimitable as in the scheme of things, there was no alternative staff who could take over their activities. Thus they qualify as VRIN resources and are labeled as “Strategic resources”.



In phase I (1982-1996), the expansion of infrastructure along with ensuring of minimal vacancies enabled improved reach of services to the community. The aim in the initial years of phase II (1996-2002) was to strengthen feedback and monitoring systems. The later part of it (2002-2006) was associated with improvement in facilities and services at the PHCs and further extension of out reach services.

In all the phases, the key issue was the role of the feed back and monitoring processes. Every feed back highlighting a deviation in the service delivery process was identified and necessary correction done. This can be seen in the case of rationalization of posting of specialists, starting of assured referral transport, the training of MOs in Manual vacuum aspiration procedure and training of staff in blood grouping. This change in behavior of staff involved in service delivery and in the mental frameworks of administrators is in line with the definition of learning (Simon 1991). The out reach camps with exit interviews, community feedback as part of verbal autopsy and field visits of administrators allowed a continuous identification of needs of the community which allowed alignment of services.

The initiatives are seen to originate from either within the organisation; such as rationalization of specialist postings or assured referral transport or from outside the organisation such as birth companion and maternal death verbal autopsies. The administrators, representing the top management, have been able to pay attention to them, identify their significance and incorporate them into their policy.

In all the phases, the attempt was to look at the felt need and align services accordingly. This can be seen in the case of start of specialty out reach camps and development of up graded PHCs.

The resultant can be diagrammatically shown as a frame work as follows:

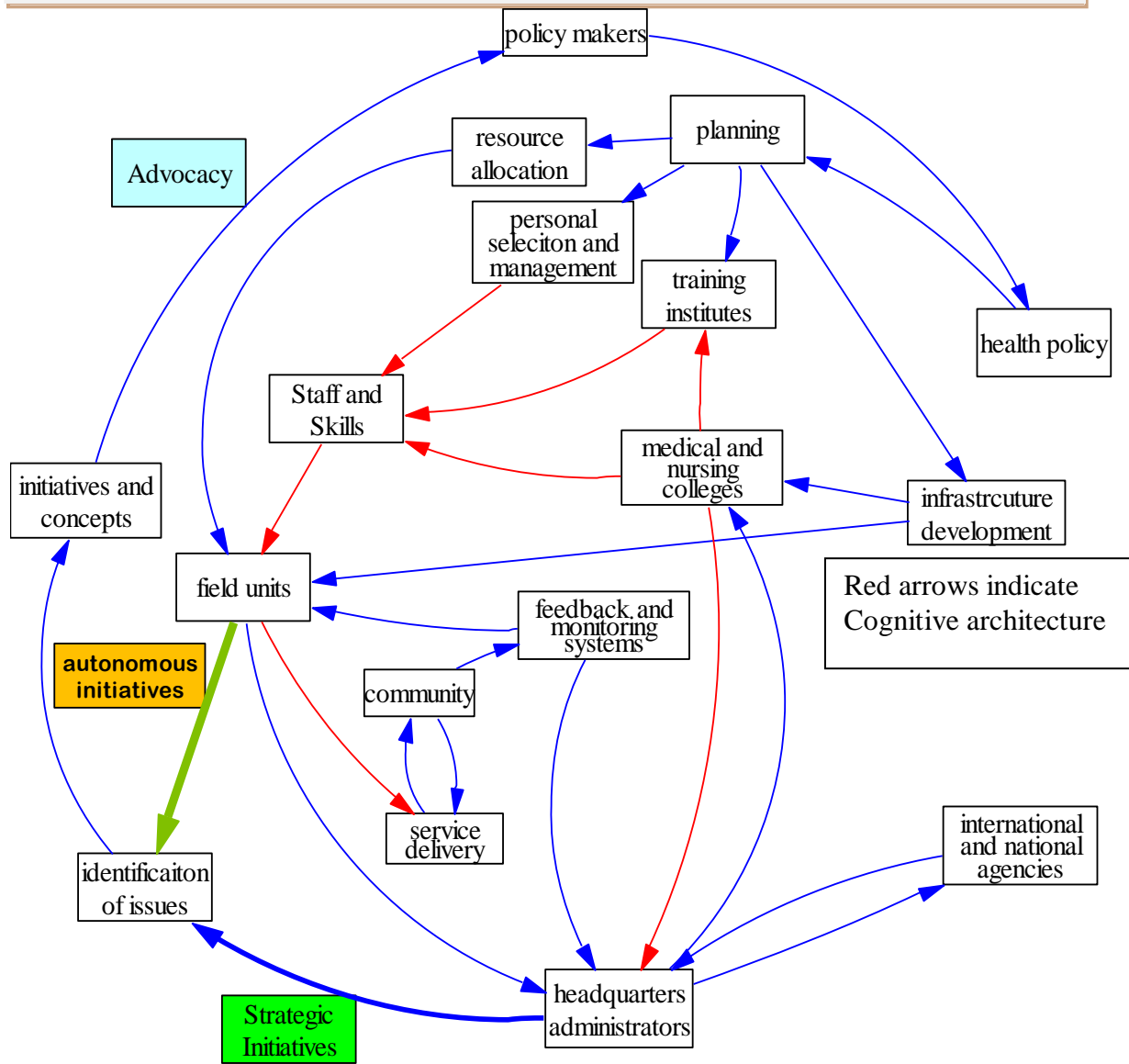


Figure 1 The strategy process and linkages of cognitive architecture with it.

The initiatives also reflect a consistent attention and allocation of resources to facilitate maintenance of key resources, be it in form of continuous training, or expansion of capacity of feeder courses in teaching institutions, or expansion and up gradation of facilities in PHCs or personnel initiatives to ensure regularization of staff hired on contract in initial phases.

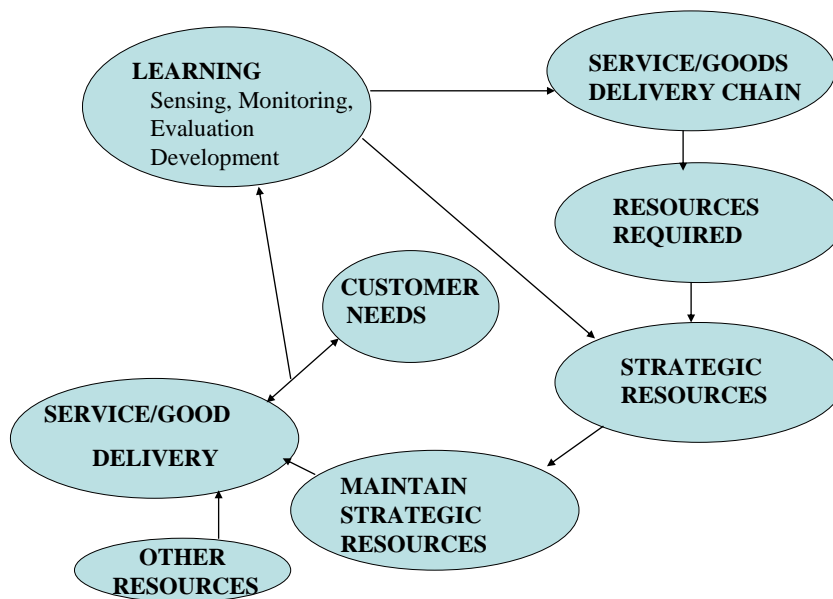
In summary (figure 1), what can be seen is that the state identified a set of activities to focus based on its prioritized objectives. Then it incorporated these into its strategy and planning through a set of initiatives aimed at fulfilling these objectives. The successful implementation involved a consistent feedback and correction mechanisms. The change in objectives over time , following successful

achievement of initial prioritized objectives, were introduced seamlessly by ensuring transfer of skills for introduction of appropriate services. These actions, managed through its cognitive architecture, were enabled by a balance between top down strategic initiatives planning and incorporation of autonomous initiatives arising out of feedback systems and learning.

Thus, the steps for implementation that emerge from the above are identification of the objective, identify service delivery mechanisms to achieve the objective, identify strategic resources which ensure delivery of key services, ensure consistent resource allocation and align decisions to facilitate the generation and maintenance of these resources. The feed back loop from the community through exit interviews, or process studies or field visits allow alignment of services with the needs of the community. Thus learning allows strategic alignment over time. The frame work is depicted below:

Figure 2: Operational frame work for implementation

OPERATIONAL FRAMEWORK



Conclusion:

This study has been successful in addressing the theoretical gaps concerning role of learning in firm performance and link it to create a tentative operational framework of implementation, which were long pending. It now has offered a tool to practicing managers for implementation. It has also introduced the construct of “strategic resource”.

The study has the inherent limitation of being a single case study and so the generated framework is tentative. Yet it offers a base on which further empirical studies can be undertaken to develop and validate this implementation framework. This case is part of a larger study.

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Year	Initiative name	Activities
1986 onwards	Creation of new PHCs, hospitals in districts	Conversion of dispensaries , sanction and building of new PHCs, conversion of block PHCs into taluk/non taluk hospitals, sanction of staff to man the PHCs.
1996	VHN mobility training	Arrange for vehicle loan, learn driving, and arrange for issue of license and payment of road tax.
1997	RCH outreach camps	ANC, and child care, health education
1998	Vital events surveys	Conduct regular vital events survey, validate incoming data and generate data for planning
1999 onwards	24*7 PHCs	Posting of staff nurses, additional equipment, sonogram, analyzer, fetal Doppler, emergency kits, upgraded labor room
1999 onwards	CEmONC centers, LSCS centers	creation of emergency facilities, labor room, operation theatre, blood storage facility, posting of specialists, staff nurses, creation of ICU for new born babies, additional equipment.
1999	Verbal autopsy of maternal death	Reporting of all maternal deaths, case study of process leading to death, identification of lacunae in process of maternal care services after analysis such as lack of specialists, blood grouping skills
2000 onwards	Expansion of MCs and seats for courses	Creation of new medical, nursing and paramedical courses institutes. Creation and posting of staff and teachers in these institutes. Expansion of seats in existing institutions
2000	Counseling of staff	Maintenance of priority lists for choice of postings,
2001	Skills development	Training in blood grouping and MTP for staff and medical officers
2001	Rationalization of posting of specialists	No specialists to be posted to PHCs, except block PHCs; ensure availability of specialists at referral centers, CEmONC and BEmONC units
2001 onwards	Upgraded PHCs	Creation of 30 bedded wards, sanction of staff nurses, MOs, specialist's, x- ray, ecg, sonogram, dental clinic, operation theatre facilities. Auto analyzer, open round the clock, emergency kits
2002	Assured referral transport	availability of vehicles, staff to accompany, contact numbers information disseminated
2004	Birth companion	Allow one lady companion with pregnant mother in labor room.
2005	Exit interviews of patients	Independent feedback gathering from patients at specialty outreach camps, identify shortcomings in service and requirement of additional services
2005	Operationalisation of BEmONC centers	renovation and up gradation of infrastructure, posting of staff nurses, emergency kits availability, referral transport system, Trained staff for blood transfusion
2005	Programmed specialists outreach camps	Availability of specialists, equipment, drugs and reagents, exit interviews of patients screened, follow up at specialty clinics.