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A look at Ghana's management strategy for the implementation of digital policy and create the missing environment for Its effectiveness

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Abstract. This study seeks to examine the strategy and management drive behind Ghana's digitalisation policies. The study revealed that governments play significant role in forming and shaping digital ecosystem and this will continue to be the case in the foreseeable future. However, the policies though are anchored in digital technology, which in most cases transferrable from one country to the other, the policies are unique and must reflect socio-culture identity of the people. The study revealed that Ghana's digitalisation strategy hinges on the collaboration with partners and a such there is disjoint between authorities, citizens and businesses at the implementation stage as there is the sense of lack of policy ownership among the people. The study further makes recommendation which will help solved the seeming problems with the strategy and management of the implementation of Ghana's digital policy.

Key words: digital policy, strategy, management, transferrable, government, digital ecosystem, socio-culture identity.

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Взгляд на управленческую стратегию Ганы по реализации цифровой политики и созданию недостающих условий для ее эффективности

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Аннотация. Данное исследование направлено на изучение стратегии управления, лежащей в основе политики Ганы в области цифровизации. Исследование показало, что правительство играет важную роль в формировании цифровой экосистемы, которая продолжится в ближайшем будущем. Показано, что каждое государство имеет возможность передать свои цифровые технологии другим странам, но при этом надо иметь в виду, что политика, основанная на цифровых технологиях уникальна для каждой страны. Она должна отражать местные традиции и социально-культурные самобытности людей. Исследование показало, что стратегия Ганы в области цифровизации недостаточно сбалансирована в части соблюдения интересов власти бизнеса и общества и нуждается в четком распределении ответственности между ними. В исследовании также содержатся рекомендации по решению данных проблем в увязке со стратегическим управлением цифровизацией в Гане.

Ключевые слова: цифровая политика, стратегия, управление, передаваемое, правительство, цифровая экосистема, социокультурная идентичность

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Introduction

In recent times, the concept of government policy of digitalising the economy has taken different understandings. Digitalisation of the economy requires that a deliberate policy be established as it has profound effect on the labour market and pushes liberalisation to higher level. Digitalisation significantly changes the relationship between government – business and government – society. Government, however, has enormous responsibility to established clearly defined policy and a robust political will whilst maintaining the socio-culture balance [Payment system statistics 2019; Schou 2018].

One of the ingredients that is important in creating enabling digital ecosystem is policy. Digital policy is therefore paramount to drive the effort of digitalising the economy. Government is not obligated to create demand for digital technologies, but it is important that government create and support an enabling environment for all stakeholders for the smooth running of digital activities. Thus, the establishment and sustaining of an ecosystem to stimulate digitalisation and leveraging on the ecosystem to create and capture values becomes the paramount task of the government [Bridging the digital... 2017].

Policy is defined as a tool used to attain a particular objective. Policy constitutes scientific evaluation of challenges, values, practice and consequences. However, in formulating policies, governments or policy – makers face the dilemma of uncertainties. Uncertainties in the future climate within which the policy is drafted and the eventual consequences of the policy on society fortifies policy drafting. Fischer and Miller [Fischer 2017, 84] assert that "...policy making takes place at a particular moment in time, marked by particular dominant ideas related to the policy issue, to affected groups, to the proper role of government". In this case, policy sets the tone for the logical behaviour of all participants and principles to adhere to in the established environment. Thus, digital policies are undertaken to set the tone for

logical and predictable behaviour of all actors within the digital ecosystem. Digital national policy decision is inevitably made by authorities (governments) who are given the mandate to act in the best interest of the society without contradicting or compromising on the value or culture of the society [Colebatch 2018; Fischer 2017; Nair 2016]. Digital policy just like any other policy has distinct features – law and regulation to guide the progress in the digital field and behaviours of participants, institutional mechanism to organise and implement the policy and a stabilising effect in accordance with the laws and culture [Hadley 2017].

Digitalisation as noted, is rapidly disrupting business models and labour market, transcending the laws of geographical boundaries and redefining social relationships making it imperative for serious government intervention in a form of policy. A government policy of digitalising the economy besides streamlining the complications arising as a result of changes in the new dynamics of value creation, can provide a measure for value capture and sustainability. Thus, a well – developed policy regulates the political, social and economic composition in businesses, nations and regions [ibid].

In fact, over the past decades, digital economy has been very topical, yet the concept has become increasingly confusing. This is partly because its scope has been widening and even though consistent in fashion, its value capture has been elusive. As a result, different countries have different policy approach with differing priority but ultimately steering towards digitalisation of the economy. Moreover, few countries took the initiative earlier than others as the edge and the political will are higher in those countries but with difficulties and constant reviewing of the policies [Andersen 2004; Digital Government 2017]. For example, the United State started conceptualisation of digitalising the economy in the late 1990s. However, by approximately the year 2000 the United States had launched a website ushering in the concept of digital economy.

Table 1. Digital policies

Country	Launch	Objective	Approach
USA	(May 2012)	Efficiency, cost, reduction, citizen centricity and security	Builds on four main areas (information centricity, customer-centricity, shared platform, security and privacy) to lay the foundation for a radically different way in which government applications and services will be developed, focusing on leveraging data through web API, on building reusable and interoperable web services, on separating a data, a platform and a presentation layer to allow services to be deployed through the most convenient channel.
UK	(November 2012)	Cost cutting and efficiency Increases	Digital information at the heart of it strategy, rather than being ancillary to service provision. All new government services are required to be digital; a set of existing ones have to be transformed.
Europe	(2010; revised December 2012)	Competitiveness and growth	7 key areas for further efforts to stimulate the conditions to create growth and jobs in Europe: 1. Create a new and stable broadband regulatory environment. 2. New public digital service infrastructures through connecting Europe facility loans 3. Launch grand coalition on digital skills and jobs 4. Propose EU cyber-security strategy and directive 5. Update EU's Copyright Framework 6. Accelerate cloud computing through public sector buying power 7. Launch new electronics industrial strategy – an "Airbus of Chips"
Singapore	2011-2015	Collaborative government	1. Co-creating for greater value 2. Connecting for active participation 3. Catalyzing whole-of-government transformation

Source: [Römmele 2017]

Furthermore, around that same period, some global trend. By this, the aim was to drive innovation European countries like United Kingdom, Germany and scientific research in the country; naturally, and France launched similar initiatives to digitalise a preparatory ground to launch digitalisation albeit with different motives and approaches. project. However, after series of experiments and errors, Russia launched a full – scale digitalisation program in July 2017 by the decree of the head of state such that between 2017–2030, Russia should digitally transform its economy and society under key thematic areas; Normative regulation of digital economy; Human resources development for digital economy; Research and development (R&D) for digital economy; Digital infrastructure; Security in the digital economy [Ershova 2018].

As evident, governments policies of digitalising the economy lack modern meaning as a result, there is lack of universal consensus on the concept of digital economy, however, the contemporary meaning and the interpretation of any government policy is contingent on trend and the advancement of technology as science keeps pushing the boundaries

of technology beyond time. Nevertheless, modern policy of digitalisation of the economy has the following features:

- Convergence of digital terminals and infrastructures
- Information
- Knowledge
- Legislative and regulatory provision
- Security

It must be noted that the rapid evolution of technology makes legal and regulatory framework obsolete in regular succession and necessitates reviewed occasionally to reflect market conditions and the new social standards.

Different countries have different approach to the implementation of digital policy as can be seen in table above. The managerial approach and strategy of implementing digital policies of a country is contingent on the objectives and the long-term vision of the country in the digital sphere. In this vein, Ghana is no exception to this general pattern of policy implementation across the globe [ibid].

Overview of digital policy and implementation mechanism in Ghana

Digital policy launch in Ghana and Implementation mechanism

Ghana's first digital initiative of ICT4AD drafted in 2003 had the strategic objective of simultaneously developing the ICT ecosystem and leveraging on the ICT ecosystem as an enabler to foster accelerated economic development. The initial stage of the policy witnessed a delay in the implementation process as a result of lack of funding. However, in the later part of 2005 and 2006, Ghana secured financial support from World Bank Group (WBG) which primarily gave a boost to start the implementation process. With the financial empowerment, Ghana launched the e-Ghana project with a strategy to execute the project within five (5) years i.e., 2006–2011. The main objectives of the e-Ghana were to create growth and employment through the use of ICT and by using public-private partnerships design to create an IT ecosystem to boost the service industry and, enhance efficiency and transparency in government institutions through e-government platforms. In this case the strategic approaches to achieving these objectives include the following [Report no. 36672 GH 2006];

1. Building capacity and strengthening of various institutions to enable them perform

implementation and regulatory functions so as to create an enabling environment for fair competition and conducive environment for businesses.

2. Building capacity to enable institutions perform financial management, monitoring and evaluation functions in order to assess the progress of the project activities accurately.
3. Support the development of human capacity building in the Information Technology Enable Service (ITES) and establish the linkage between ICT service industry and the educational institutions.
4. Developing IT infrastructure and interoperability standard for government platforms and networks and providing government investment support for public-private partnership for the creation of shared infrastructure for the purposes of e-government project.

These strategies as per the conditions of the loan facility from WBG were to be put under independent financial and procurement auditors whilst the government adopt an inclusion participation approach to include Ministry of Communication (MoC) and the Ministry, Department and Agency (MDAs) in the management and execution of the project. Further, under the management of the government, effective monitoring and evaluation (M&E) system was to be established to serve as instrument to measure progress. Meanwhile, WBG with its partners like IFC and MIGA were to help solve a number of sector problems and provide technical advice on the operation of public-private partnerships to leverage public resources in an optimum manner [Schou 2018].

In general, management and management decision-making for the implementation of the e-Ghana was made by Ministry of Communication whilst WBG and other partners like USAID, Embassy of Switzerland, UNDP, GTZ and AFD played extensive role in designing and preparing MoC to be better positioned to execute the project through collaborative efforts. Furthermore, MoC delegated day-to-day execution of the e-government component to Ghana Information Communication and Technology Directorate GICTeD whilst the delegation of Business Process Offshoring (BPO) and local ICT business component went under the supervision of ITES division. In return, MoC was tied

to prepare M&E report to WBG on quarterly basis and a comprehensive report depicting progress of the project semi-annually. This will form the basis for the disbursement of the next tranche of fund needed to execute the project. Furthermore, a mid-term reviewed was undertaken by an independent analyst to ascertain progress of the project at the end of the second year of the implementation process [Report No. 36672 GH 2006].

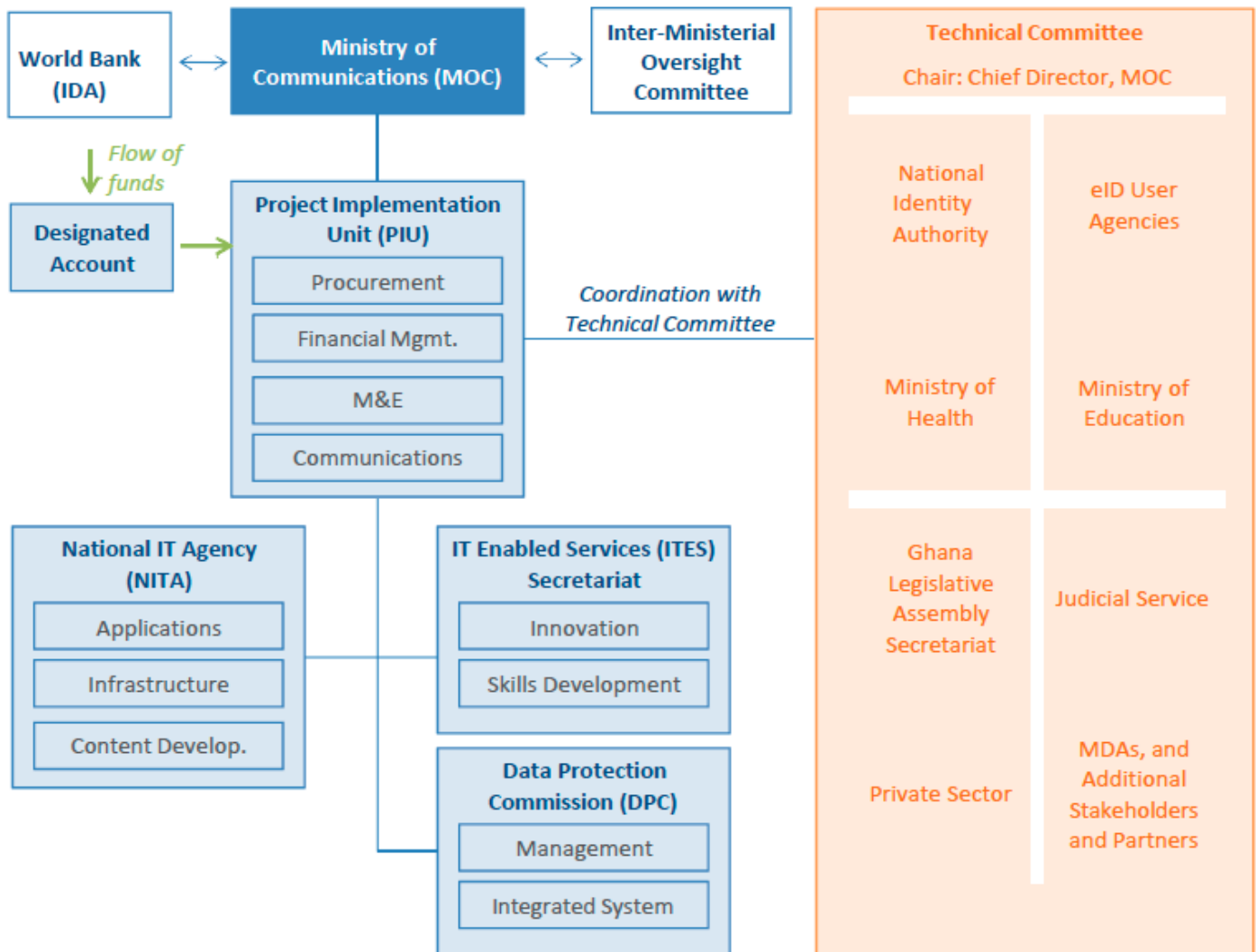


Diagram 1. Management mechanism
 Source: [Report No: 80293-GH 2013]

Achievement and challenges

Notwithstanding the ineffectiveness of the mechanisms deployed to manage the implementation process, there were some substantive outcomes while other outcomes were just satisfactory. This, nonetheless, led to the extension of the program further than the stipulated time frame of 2012. Subsequently, in 2013, a new credit facility agreement was signed between the government of Ghana and WBG for financial assistance to extend the digitalisation program. The program was renamed e-Transform Ghana and was expected to run through to the end of 2019 [Report No: 80293-GH 2013]. Thus,

effectively extending the digitalisation program for another five (5) years. Under the extended credit facility, the main objective was to enhance coverage and effectiveness of government service delivery through ICT. That is, with the help of WBG and partners, Ghana's e-government initiative will be improved in the service delivery. The management approach in attaining this feat includes dividing the main objectives into sub-objectives and allocate the fund appropriately. These sub-objective tasks includes:

1. Creating an enabling environment for an electronic government and business

2. Creating supporting system for the upgrading national identification system and online verification services;
3. Increase the number of applications to improve service delivery in selected priority areas;
4. Create project management support.

The management arrangement under this credit facility just like the previous facility, was carried out by government of Ghana and some selected institutions with WBG and affiliate partners playing an oversight or supervisory role. The Ministry of Communication was task to spearhead the execution process while National Information Technology Agency (NITA) and ITeS play supporting role to the implementation of the program. Generally, management and the strategies of the implementation process were no different from the previous arrangement in terms of functions (coordination and M&E) and funds allocation (financial management) although the sum involved was significantly higher than the previous arrangement. However, the uniqueness of the e-transform project was evident as a result of the cross-sectoral nature,

giving the Ministry of Finance a crucial role in the planning and execution of the project.

Previous experience from the e-Ghana project coupled with the new role assigned to the Finance Ministry resulted in substantive outcome especially in the digitalisation of the financial sector. In a coordinated manner, the Finance Ministry through various regulations, directives and institutions generated digital transaction awareness and promoted financial transaction through a common and enhance financial platform. This led to an increase in electronic transactions in the financial sector.

By the end of the e-transform project, the financial sector digital reform has yielded significant outcome. Thus, there has been significant increase in the number of citizens willing and ready to adopt the E-zwich transaction platform. Interesting, the beginning of the rise in the numbers coincided with period in which the e-transform started. The 'National switch' (gh-link), a platform for interbank transaction had significant increase in operation after the upgrading and integration of the platform.

Table 2. E-zwich Transactions (Biometric Payment Card)

Indicators	2012	2013	2014	2015	2016	2017	2018	Jan–Mar 2018	Jan–Mar 2019	2019 Growth (%)
Total Number of Cards Issued	792,966	903,724	1,084,121	1,369,369	1,878,044	2,364,456	2,774,799	2,411,746	2,836,565	17.61
Cards with Value (% of total)	43.4	43	38.72	44.8	48.5	50.71	53.24	52.27	55.61	6.39
Value on Cards (GH¢'million)	8.12	8.14	8.76	29.02	53.57	74.43	123.19	71.53	180.88	152.87
Average Value Per Card (GH¢)	23.60	21.00	20.90	47.30	58.79	62.07	83.38	56.74	114.67	102.09
Volume of Transactions	1,147,418	814,441	625,167	2,251,101	5,365,085	8,367,017	7,759,354	1,769,685	2,252,200	27.27
Value of Transactions (GH¢'million)	217.80	217.20	272.70	922.90	2,362.96	3,431.49	5,651.14	1,747.75	1,214.34	(30.52)

Table 3. National Switch (gh-link™)

Indicators	2012	2013	2014	2015	2016	2017	2018	Jan–Mar 2018	Jan–Mar 2019	2019 Growth (%)
Volume	10,295	549,456	1,346,963	1,899,645	2,067,498	2,340,409	1,830,182	521,695	242,541	(53.51)
Value (GH¢'million)	1.1	67.5	183.32	305.14	447.04	603.43	543.74	148.24	79.85	(46.13)

Table 4. GhIPSS Instant Pay (GIP)

Indicators	2017	2018	Jan–Mar 2018	Jan–Mar 2019	2019 Growth (%)
Volume	41,795	143,879	24,227	126,925	423.90
Value (GH¢'million)	83.23	534.04	52.89	248.48	369.80

Table 5. Mobile Money¹

Indicators	2012	2013	2014	2015	2016	2017	2018	Jan–Mar 2018	Jan–Mar 2019	2019 % Growth
Total number of mobile voice subscription (Cumulative) ²	25,618,427	28,026,482	30,360,771	35,008,387	38,305,078	37,445,048	40,046,590	38,858,542	40,934,875 ³	5.34
Registered mobile money accounts (Cumulative)	3,778,374	4,393,721	7,167,542	13,120,367	19,735,098	23,947,437	32,554,346	25,306,085	29,578,169	16.88
Active mobile money accounts ⁴	345,434	991,780	2,526,588	4,868,569	8,313,283	11,119,376	13,056,978	11,248,758	12,725,649	13.13
Registered Agents (Cumulative)	8,660	17,492	26,889	79,747	136,769	194,688	396,599	217,974	355,912	63.28
Active Agents ⁵	5,900	10,404	20,722	56,270	107,415	151,745	180,664	161,317	182,344	13.03
Total volume of transactions	18,042,241	40,853,559	113,179,738	266,246,537	550,218,427	981,564,563	1,454,470,801	312,926,881	436,723,487	39.56
Total value of transactions (GH¢'million)	594.12	2,652.47	12,123.89	35,444.38	78,508.90	155,844.84	223,207.23	52,352.80	66,356.41	26.75
Balance on Float (GH¢'million)	19.59	62.82	223.33	547.96	1,257.40	2,321.07	2,633.93	2,221.91	2,729.71	22.85

1 Currently three (3) Mobile Money Operators offer mobile money services (MTN, AirtelTigo and VODAFONE)

2 Source: National Communications Authority (NCA)

3 Total mobile voice subscription figure is as at December 2018 (NCA)

4 The number of accounts which transacted at least once in the 90 days prior to reporting

5 The number of agents who transacted at least once in the 30 days prior to reporting

Ultimately, 'GhIPSS Instant Pay (GIP)' a general Management System (GIFMIS). Furthermore, there platform created and supervised by the government was significant public awareness of the program of Ghana was upgraded and became interoperable. which led to citizens adopting the electronic This proved effective in terms of getting rural citizens transaction.

into the financial service sector as there was over unfortunately, besides the financial service 400% increased of volume of transactions processed sector, progress on the other digital initiatives, at between 2018–2019. Mobile money operations best have been below average. The e-service and increased exponentially with the introduction of e-government initiatives have not been accepted the interoperability among networks and banks. and used by citizens as expected. This is because, The volume and value of transactions increase besides lack of investment in infrastructure, the significantly between the period of 2013–2018 citizens are mostly unaware of the policies and [Payment system statistics 2019]. It is worth noticing businesses are less enthusiastic in adopting these that under the e-transform, there was huge financial services. This could be attributed to the lack of allocation for the Ghana Integrated Financial adequate consultation with key stakeholders

in formulating digital policies by government. Citizens and businesses are literally recipients of government and development partners decisions and in most cases are mere sources of information for government and donor partners policy making instrument. Furthermore, only staff of 'relevant' agencies had good knowledge of the policies and how the implementation will be approach, leaving majority of the agencies unaware of what to be done and how it will be done i.e. poor coordination between agencies.

The management approach and mechanism put in place to an extent helped achieve the established objectives to moderate satisfaction however, the mechanism and management approach prove quite ineffective. This is because some major stakeholders were neglected and relegated to the role of sources and or recipients of information. The private sector especially, hardly understood the strategic direction of the policy and the implementation process hence could barely adapt to the environment promptly and appropriately.

Lack of education and policy understanding, only few actors on the market actually recognises the law and act within the framework whilst majority of the population remain largely ignorant and indifferent to the law and the consequences therein [Report No: 80293-GH 2013].

Conclusion

In examining the policy implementation strategy of Ghana's digitalisation policy, it was evident, the lack of consultation with major stakeholders such as business and citizens. This resultant in the absence of policy ownership by the citizenry. This created dysfunctional atmosphere where citizens do not know and understand the policy hence become indifferent to the implementation process and ultimately success of the policies meanwhile, authorities expect citizens to understand and appreciate the government effort of digitalisation.

More so, there was lack of education and

sensitization on the digital policy except for the digitalising the financial service sector. Citizens and businesses barely know the essence of any digital initiative but mostly comply out of necessity. The literacy level and self-awareness of the citizens were still low such that citizens were mostly unaware of existing laws and the reasoning behind the law governing the digital process. Furthermore, regulatory agencies were less resourced meanwhile donor partners were more focused on transparency and good governance missing out on the important element of educating and sensitizing the citizenry and it consequent acceptance of the initiative.

Recommendation

The role of government in policy formation and realisation is crucial. However, there is no standard management approach and methods in forming and realising digital policy. This is because every country has it unique socio-political features and culture values, therefore in the formulation and realisation of policy, as much as political will of the leader is crucial, the social context must cannot be ignored. That is, every strategy must get the citizens and major stakeholders involved so as to make the implementation stage run smoothly.

The lack of financial capability of the country took the policy ownership from the ordinary citizens as the leadership were preoccupied negotiating key aspects of the loan facility at the expense of engaging the citizens and domestic stakeholders. Consequently, there was an obvious disjoint between policy formation, policy implementation and policy acceptance. It is therefore imperative that the country for that matter any other country builds up its own financial capability so that focus will be on implementing major elements of the policy.

However, Monitoring & Evaluation (M&E) approach was effective in it form and shape and could be replicated at all levels of management in the implementation stage.

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