

## **Managing the Digital Transformation, Strategic Management, and Tactical Actions to Implement GFMS: an Egyptian case study**

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Twenty-fourth conference - Crisis Research Unit - Faculty of Commerce - Ain Shams  
University.

Entitled "Managing the digital transformation to achieve Egypt's Vision 2030"

2019

## Abstract

This study aimed to show whether there is a compatibility between the tactical actions to Implement GFMS with Strategic Management objectives for Digital transformation. The study uses an interpretive case study in which the GFMS was imposed by the government. A search of the English literature addressing Digital transformation; GFMS; TAS; E-payment; sustainable development strategy; Egypt vision 2030 and related topics was conducted using online resources and databases accessed through the Egyptian Knowledge Bank – EKB. The study recognizes that the implementation of GFMS may have emerged primarily as a response to external political and economic pressures. Findings reveal that some achievements have been made, but more needs to be done to overcome the challenges encountered in e-government development and implementation. The study recommends the need to rehabilitate government employees before the process of digital transformation and Work on bridging vulnerabilities before digital transformation and not after implementation.

*Keywords:* Digital transformation; Egypt vision 2030; E-payment; GFMS; sustainable development strategy; TAS.

## Managing the Digital Transformation, Strategic Management, and Tactical Actions to Implement GFMS: an Egyptian case study

### Introduction

For years, Egypt has been striving to promote the development of ICT infrastructure and digital services in government agencies. (Elkadi, 2013; Gebba & Zakaria, 2015) It is one of the main priorities to improve the performance of ministries and other government agencies, raise the quality and efficiency of the services they provide to the public by improving the work environment, providing support to the decision-making process and finding solutions to the issues of interest to society. (Mostafaa & El-Masry, 2013) These efforts are strengthening local markets and increasing demand for ICTs. (Gebba & Zakaria, 2015).

In 2003, the Egyptian Information Society document appeared in its first edition, followed by a second edition in 2005. It briefly explains the initiatives that have been implemented to support Egypt's transformation into an integrated information society while addressing internal development issues through research, development and electronic access programs. It also implements flexible regulatory measures to attract foreign investment. (MCIT, 2003; MCIT, 2005) During the period 2007-2010, Egypt adopted the development strategy implemented by the MCIT by identifying citizens' requirements regarding e-access, e-education, e-health, e-content, and e-government services, which are vital to both social and economic development in Egypt and reflect Egypt's commitment. Using ICTs to achieve more sustainable human development and building an integrated information society capable of taking advantage of the modern information revolution. (MCIT, 2007) During the period 2014-2017, Egypt invests the Egyptian citizens' positive vision of its tools through applications that give more space for community participation, effective integration with community issues and participation in realizing the citizen's right to a decent life, freedom and social justice through innovative technological solutions and through supporting human rights. Digital Citizenship. (MCIT, 2013)

That is why, some trends have evolved such as e-readiness, e-learning, e-government, e-business, e-health, and e-culture. (Ezz & Papazafeiropoulou, 2006) Digital transformation to E-government could be put into three main categories: Government-to-Government (G2G), Government-to-Business (G2B), and Government-to-Citizen (G2C) (Young & Leong, 2003), The E-Government Index developed by DPEPA ranks Five Arab countries including Egypt the category of medium e-government capacity, suggesting that there is a great potential for Egypt to boost up their e-government index performance. (Leigh & Atkinson, 2002)

In spite of the efforts exerted by the Egyptian government, the e-government development index in Egypt during the period from 2008 to 2018 decreased from seventy-nine to one hundred and fourteen out of 193 countries at an average rate of 0.48080, which is lower than the international average of 0.5491. (publicadministration.un.org, n.d.) On another, The Corruption Perceptions Index 2018 reveals that most MENA countries have failed to fight corruption. At 39 degrees, the MENA region is behind the Americas and the

Asia-Pacific region (44 degrees for the two regions), only slightly better than Eastern Europe and Central Asia (35 degrees) and sub-Saharan Africa (32 degrees). The Corruption Perceptions Index 2018 showed that Egypt ranked 105 out of 180 countries with a score of 35 out of 100, compared to 94 out of 175 countries in 2014, which is a deterioration based on the benchmarks (transparency.org, 2018).

With this background in mind, reforming and modernizing public financial management has been a high priority on Egypt's policy agenda over the past years. (Al-adawi, Yousafzai, & Pallister, 2012) The reforms covered a range of areas, including revenue management, financial information systems, cash management, financial decentralization, and internal financial control. (The World Bank, 2010) Despite the efforts, there was no comprehensive strategy and action plan to guide the reform process. (Abdelghaffar & Magdy, 2012)

Therefore, the conference entitled "Supporting and Developing the Egyptian Economy" held in Sharm El-Sheikh in March 2015 witnessed the launch of the "Sustainable Development Strategy: Egypt Vision 2030". (enow, 2016) The strategy aims to develop and formulate a vision for Egypt 2030 to serve as a road map that maximizes the utilization of Egypt's potential and competitive advantages and revitalizes its historical role in leading the region and providing a high quality of life for citizens and achieving economic and competitive development in markets and human capital.

What is more, the strategy includes the basic dimensions of sustainable development, Under the umbrella of these three dimensions, the strategy includes ten themes; the economic dimension includes economic development, energy, innovation and scientific research, transparency, and efficiency of government institutions.

Regarding, Transparency and Efficiency of Government Institutions Pillar Vision: An efficient and effective public administration sector managing state resources with transparency, fairness, and flexibility. Subject to accountability, maximizing citizens' satisfaction and responding to their needs. (sdsegypt2030.com, n.d.) Ten programs have been identified for implementation Transparency and Efficiency of Government Institutions Pillar:1. Improving the public management system.2. Improving the planning and monitoring system. 3. Developing the communication mechanisms between the government and citizens. 4.Improving the human resources management system. 5.Updating the legislative structure. 6. Improving the basic infrastructure of public administration.7. Updating the information database of public administration. 8. Developing the human resources of public administration. 9. Improving government services provided to citizens. 10. Fighting corruption in agencies

The Ministry of Finance has been working on the digital transformation process for years, in cooperation with many concerned ministries, the implementation of the Government Financial Information Management System (GFMIS) will be addressed as a case study.

We can argue here that. digital transformation to E-government is far from reaching its maximum potential and until the gap between what is offered and what is used is bridged, governments will not get all the value possible out of this transformation. Therefore, it is important to understand the factors that might influence the implementation. This study

was conducted to identify challenges that faced tactical steps to implement GFMIS to remedy them in future phases of strategy implementation. Specific objectives: The objective of this study is to review and evaluate the tactical steps to implement GFMIS.

The paper is arranged as follows: after this introduction, in section 2, we review and evaluates tactical steps to implement GFMIS. Finally, in section 3 summarizes the paper and provides remarks about conclusions.

### **Methods**

The research is based on first and Secondhand data derived from interviews, observation, document analysis, and knowledge mining. However, constraints on data collection and analysis caused several limitations. A longitudinal study could not be conducted to observe the historical events unfolding over time. Nevertheless, we were able to reconstruct the historical context of the tactical steps to implement GFMIS based on documentary evidence, historical data, and interviews with managers (and others) who worked during the pre-implementation and post-implementation phases of the GFMIS. The visits were used to gather evidence regarding tactical steps to implement GFMIS. As such, a retrospective approach was used, asking interviewees to describe, explain, and reflect upon the events they had experienced in the past. Hence, wherever possible, multiple data sources were used. The views of the different groups were sought, and interviewees were asked similar questions regarding the tactical steps to implement GFMIS and the changes during and since the implementation process.

This research was informed by existing literature obtained through Internet resources. Peer-reviewed, English-language articles were collected using Google Scholar and the Egyptian Knowledge Bank - EKB, which provides access to databases and Academic Search Complete. Keywords used in these literature searches included the Digital transformation; GFMIS; TAS; E-payment; sustainable development strategy; Egypt vision 2030. We tried to limit literature primarily to articles published within the past 5 to 7 years so that the information referenced was not outdated. Government and sponsored web pages and PDF documents containing information on these topics also were used.

### **Results**

“Egypt’s experience during the past decade clearly illustrates that successful implementation of PFM reform done because Egypt has tackled many of the crucial dimensions of PFM. Progress has undoubtedly been made—particularly in the area of tax and customs reform.” (The World Bank, 2010)

#### **The general perspective of the digital transformation of the Ministry of Finance**

First: - Activating the automation of predictive and predictable macroeconomic policy systems. Second: - Automating the stages of preparing the general budget of the state, through the sectors of the general budget and the budget of the local administration in the ministry, the governorates and the budgetary bodies, which is already automated and is currently being developed. Third: - Automating budget bodies and accounting units on the GFMIS system for Oracle Financial Applications on the third accounts tree. (MOF, 2018)

The main objectives of the application of the GFMIS: 1. Achieve financial discipline and compliance and reduce errors. 2. Achieving efficiency and effectiveness in using government resources. 3. Providing accurate and real-time data and information on all government financial information that helps provide efficient and effective services and sound economic planning. 4. Raise the level of financial transparency and inclusiveness. 5. Achieve follow-up, control, and financial accountability. 6. Raise the efficiency and effectiveness of the implementation of financial procedures. 7. Increased capacity for proper planning of government cash flows. (Reddick, Abdelsalam, & Elkadi, 2011; Kofahe, Hassan, & Mohamad, 2019; Naser, 2017)

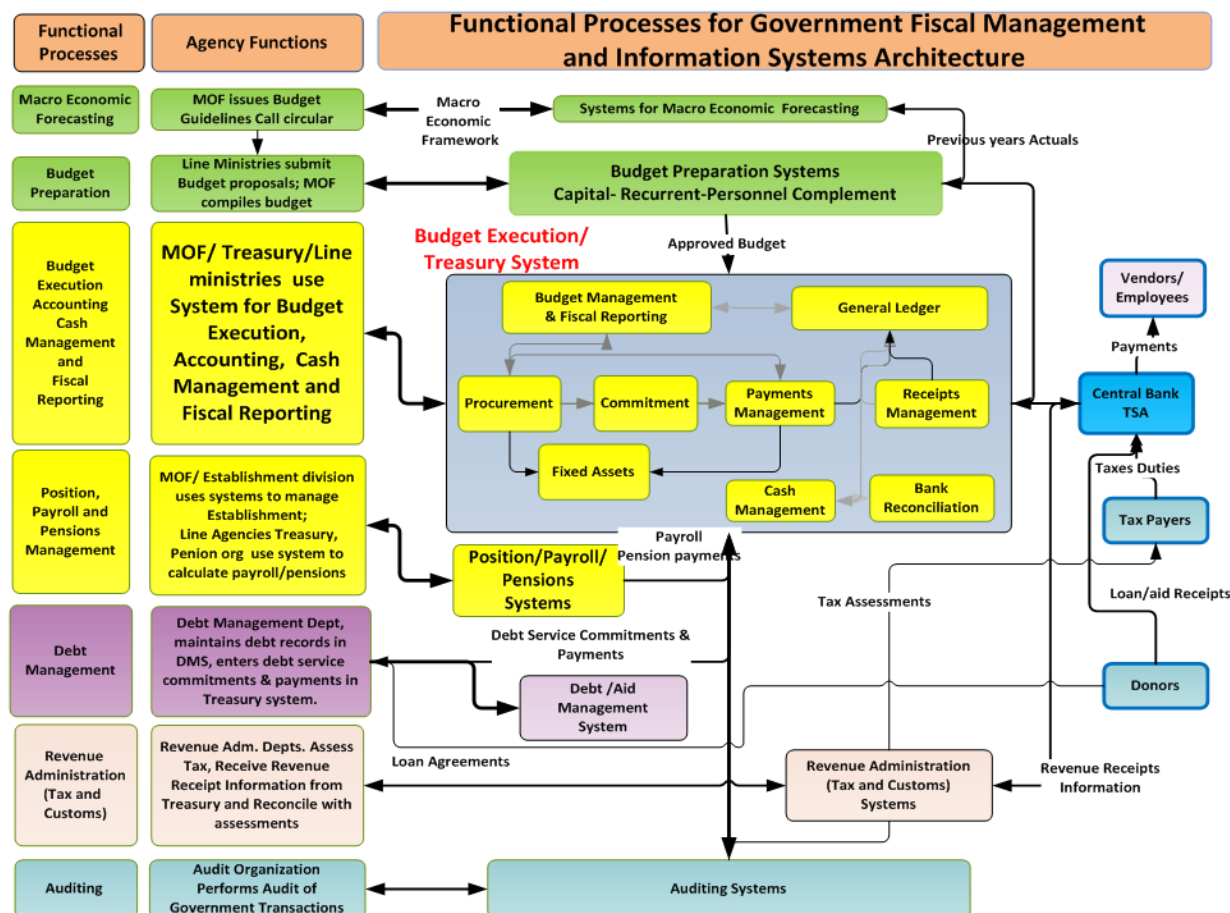


Figure 1 functional processes for government fiscal management and information systems architecture.

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### Historical development in the MOF until reaching to GFMIS activation:

on 18 December 2000, Decree No. 209 issued by the MCIT established a committee composed of representatives from the Ministry of Finance, the Ministry of Interior, the Ministry of Foreign Affairs, the Ministry of Economy and Foreign Trade, the Ministry of State for Administrative Development, the Central Bank of Egypt, the Information and Decision Support Center of the Council of Ministers, as well as legal and technical experts.

From different academies and the private sector. To develop a draft law regulating electronic signatures.” (mcit.gov.eg, 2000)

### **1- Historical Development of Treasury Single Account (TSA)**

In late 2004, a mission of the International Monetary Fund (IMF) reviewed the opened accounts in the Central Bank for Egypt's governing bodies and units. Which reached 48 thousand accounts. on the other hand, the number and balances of unrestricted accounts for the budget bodies, which are open outside the Central Bank and subsequently the MOF is borrowing its balances in the form of treasury bills and bonds from commercial banks. that is why the need to create a TAS has emerged as one of the key elements of the PFM reform program and the optimization of the management of government financial resources. (gfmis.mof.gov.eg, n.d.; The World Bank, 2010)

Also, in 2004, the automation of the preparation for the state budget started from the stage of introducing the opinion of the entity until the issuance of the state budget law and the successful completion of the project and obtaining all the required reports.

During 2005, the Ministry of Finance has started the implementation of the automation system for financial units, intending to increase the efficiency and effectiveness of the process of calculating and analyzing cash flows and speeding up the final budget of the State. (mcit.gov.eg, 2019)

The parliament issued legislation to address the negatives remarks noted by the mission of the International Monetary Fund, represented in Law No. 139 of 2006, amending some of the provisions of Law No. 127 of 1981 and had two main axes: The first axis Establishing a TAS that includes open accounts in the Central Bank of Egypt and Transfer all open accounts in commercial banks to it. The second axis Prevent the administrative bodies to open any accounts outside the Central Bank unless they are zero accounts.” (gfmis.mof.gov.eg, 2016) As a result, the Ministry of Finance managed to improve the liquidity of the government by more than 32 billion Egyptian pounds transferred to the Central Bank after the closure of about 3150 accounts as of the end of February 2009. (The World Bank, 2010)

### **2- Historical Development of E-payment:**

The Parliament on Saturday, April 17, 2004, approved the law on electronic signature and the establishment of the Information Technology Industry Development Agency. (mcit.gov.eg, 2004) In June 2007, it was contracted to establish, operate and manage the main e-payment and collection center and prepare an annex related to the implementation plan, which includes the plan of construction, installation, and operation of the main center for payments and electronic receipts and expansion plan to provide services. A decree issued by the MOF No. 207 of 2008 on the establishment of the e-collection and e-payment unit at the MOF was issued to follow up on the activation of services. (Beschel & Ahern, 2012)

**Parties to the system:** (gfmis.mof.gov.eg, n.d.)

1. All government agencies.
2. The accounting units of the Accounts and Financial Directorates Sector at the MOF.
3. Central accounting unit of the finance sector at the MOF.

4. Government Electronic Certification Authority Unit, MOF.
5. Information Technology Unit, MOF.
6. Government e-payment and collection unit at the MOF.
7. Technology company operating financial institutions.
8. Egyptian Central Bank.
9. Banks in the Egyptian banking sector.
10. Egyptian Banks Company.
11. Egyptian Postal Authority.

*Table 1 Starting dates of the activation of electronic payment and collection services*

Service	Date of Activation
Electronic payment of State employee benefits.	14/02/2009
Electronic payment of suppliers' dues (all budget sections)	28/06/2009
Electronic collection of Egyptian customs	17/10/2009
Electronic collection of current accounts in Egyptian Customs	1/6/2012
Electronic Collection of Egyptian Taxes	07/05/2009
Control collection of Egyptian tax checks	07/05/2009
Payment Channels (Government ATMs)	01/10/2009

Source: <http://gfmis.mof.gov.eg/Epayment/HistoryEpayment>

” (gfmis.mof.gov.eg, n.d.)

Table 1 shows the starting dates of the activation of electronic payment and collection services. Anyway, by 2010, the system had been implemented in 1,600 financial units nationwide, and major financial units were linked to their affiliated bodies. (mcit.gov.eg, 2019)

### **3- Historical Development of GFMIS:**

In 2004, the automation of the preparation of the state budget was initiated, starting from the stage of introducing the opinion of the entity until the issuance of the state budget law. The project was completed, and all the required reports were obtained. In 2006, the automation of the preparation of the final accounts was successfully initiated. All the reports required for the final accounts sector were issued and the project was completed. (MOF, 2018)

In 2008, the Ministry's automation plan was expanded on several axes: Firstly, Comprehensive automation of both the accounting unit of the General Secretariat Sector and the accounting unit of the Minister's office sector, both financial and budgetary. Secondly, Start the automation of the six accounting units in the finance sector of the Central Department of Central Accounts. Thirdly, Begin the automation of budget bodies, Through the training of accountants in these bodies to enter the draft budget of the opinion of the entity as well as enter form 75 sheet per month, in the so-called automation of data handling. In 2009 was completed: 100% of the budgetary bodies can enter a draft opinion. And approximately 70% of the units can enter Form 75sheet. (gfmis.mof.gov.eg, 2018)

The IMF report stated that the automation of GFMIS that would support improved accounting and reporting is one of the most disappointing reforms. Many technology initiatives have been implemented with little apparent rationale or coordination. However,



recent IMF assessments indicate that the automation of new financial management information systems is on track. (The World Bank, 2010)

In 2010, the third accounts tree was established and the GFMIS project was launched. In 2012, technological solutions were introduced to automate the salaries of employees in the General Secretariat sector and then the Minister's office sector within the MOF on Oracle applications. In 2017, the GFMIS system was linked to the TAS. On 1/8/2017, the MOF announced the launching of the first phase of the automation of the accounting units and the budget bodies. (gfmis.mof.gov.eg, 2018)

This is done on the third tree of accounts with the linking of the implementation process to the TAS, ensuring that the bodies do not exceed the budgetary allocations, starting from the end of the second tree of accounts, which is the stages of preparation of the state budget until the issuance of the budget linking law as well as the preparation of final accounts, which are extracted reports. The credits are then transferred to the third accounts tree to activate the GFMIS automation system. (MOF, 2018)

Developing the preparation of public budget automation on Oracle Hyperin applications, consolidate the accounts tree and rely on the third accounts tree, targeted on the GFMIS system. To integrate with the macro-financial policy unit, which is concerned with the strategic preparation stage before the preparation of the state budget and the first flow of work in the GFMIS system. This application achieves from its predecessor other than the ease of dealing and integration within the third tree of accounts to provide some tools that help in the possibility of preparing scenarios of economic forecasting, charts and performance indicators as well as the introduction of the table of functions necessary for the searches in the proposals of the first section on wages. The requirements for the budget and information technology sectors have already been finalized and technological solutions are being developed.

The electronic implementation of the state budget contributed to controlling and governing the financial performance, tightening the control over spending, ensuring that the funds allocated by the legislature are not exceeded, raising the efficiency of public spending, maintaining the target deficit and even achieving a deficit level of 8.2% less. From the deficit that was targeted at 8.4%, and to achieve the first surplus target level of 2%, in addition to providing accurate real-time data on the performance of the implementation of all budgets of the bodies and units of each minister, governor or head of a university and university, In addition, for the first time, the final accounts of the budget ended on the same day as the end of the fiscal year, the new budget was introduced from the first day of the new fiscal year, resulting in Achieving financial discipline and Quality of performance; The budget financiers were able to meet the requirements of their approved activities and plans in accordance with the specific financial allocations; "(MOF, mof.gov.eg, 2019).

### **Tactical actions to implement GFMIS**

The tactical steps to implement the system included four consecutive phases as shown in Figure 1.

#### **Awareness phase**

The MOF has issued instructions to the budgetary bodies and accounting units to coordinate with the task force implementing the GFMIS during the awareness phase. Therefore, the representatives of MOF, account managers and some employees of the units were mobilized to attend awareness workshops in the ministry theater.

The awareness plan included three groups; each targeted a few governorates .The first group covered the provinces Cairo, Sohag, Giza, Aswan, Qalyubia, Ismailia and Gharbia .The second group covered the provinces El Monofeya, El Fayoum, Kafr El Sheikh, Red Sea, Dakahlia, Port Said, Damietta, North Sinai, and Sharqia. The third group covered the provinces Alexandria, Minya, Beheira, Suez, Qena, Matrouh, Beni Suef, New Valley, South Sinai, Assiut, and Luxor.

Each group was divided into five stages, Schedule for each group, five days awareness for leaders and five days for all levels.

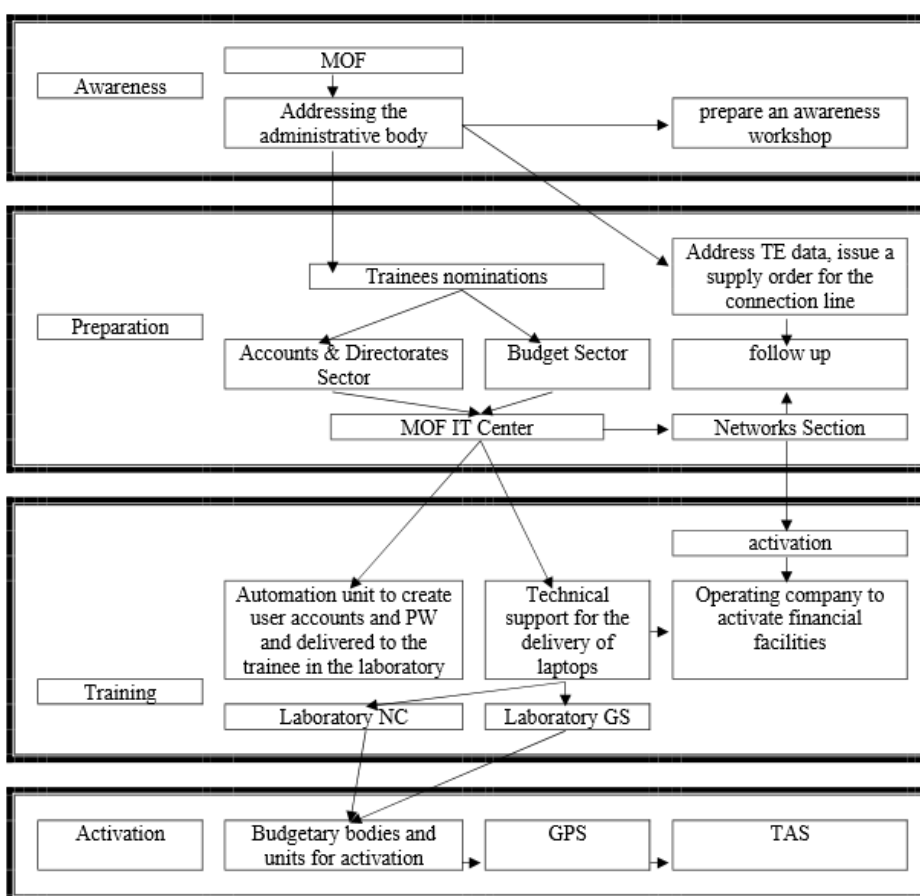


Figure 2 Work cycle to activate the GFMIS

### Awareness workshops

Awareness campaigns started from 1/11/2017 and continued until 6/20/2018. These workshops were to inform the audience firstly, that GFMIS was planned to be implemented in the coming days. Secondly, the entity must nominate a number of employees to receive training and receive new work assignments and start carrying out immediately .last but not

least, The presenters for awareness workshops only read some of the static texts that do not clarify the meaning of the system, especially since many of the attendees were not aware of the system in advance and what is the relationship linked GFMIS with the E-payment system and how they will be linked to the TAS. Moreover, The few participants they had previously worked on the system had focused questions about the problems they faced during the actual application, almost all of the questions asked by the audience about the problems faced by them in E-payment system in the form of dilapidated devices and slow system and the disruption and difficulty of access to the net, was not answered. Besides, the presenters for awareness workshops confirmed that it was decided to implement the system, and the attendee's questions will be recorded and considered to try to respond to them later and to consider when implementation. Above all, the dates set for the awareness workshops were inconsistent with the deadlines for attendees to submit monthly and quarterly financial reports on their units, which they may have missed to attend the workshops.

Table 2 The awareness phase schedule

group	stages	Governorate	Total Units	awareness for leaders	awareness for all levels
1	1	Cairo	99	01/11/2017	09/11/2017
	2	Suhag + Cairo	100		
	3	Aswan + Giza	77	07/11/2017	19/11/2017
	4	Ismailia + Qalyubia	77	14/11/2017	26/11/2017
	5	Gharbia	86	21/11/2017	03/12/2017
2	6	El Monofeya+ El Fayoum	100	28/11/2017	10/12/2017
	7	Kafr El Sheikh+ Red Sea	98	05/12/2017	17/12/2017
	8	Dakahlia+ Port Said	98	12/12/2017	24/12/2017
	9	Damietta+ North Sinai	77	19/12/2017	31/12/2017
	10	Sharqia	92	26/12/2017	14/01/2018
3	11	Alexandria+ Minya	93	02/01/2018	21/01/2018
	12	Behera	83	26/12/2017	28/01/2018
	13	Suez+ Qiana	89	16/01/2018	04/02/2018
		Matrouh		23/01/2018	
	14	Beni Suef	85	23/01/2018	11/02/2018
15	New Valley+ South Sinai	71	30/01/2018	18/02/2018	
	Assiut and Luxor		06/02/2018		

Source: <http://gfmis.mof.gov.eg/GFMIS/WorkPlaneGFMIS> (gfmis.mof.gov.eg, n.d.)

## Preparation phase

### 1. Trainee nominations

Budgetary bodies and accounting units have been instructed to nominate several employees, one for each function in the system the system included the following functions:

- 1- Activating the budget bodies by (1) trainees on: -
  - a. Allocation, promotion and budget transfers
- 2- Activation of accounting units by (4) trainees on: -

- a. Prepare cash flow plan
- b. Establish the obligations
- c. Enter the actual data on the general ledger
- d. Reviewing and posting accounting entries by the MOF representative at the entity.

In general, Officials in both the budget bodies and the accounting units faced a few obstacles during the nomination process. Lack of qualified human resources to deal with technology in general and the GFMIS in particular. Apart from that, the conflict between the old school of older employees who hold important positions because of the acquisition of information for themselves and the young employees who aspire to join the system as a reason for their promotion and removal of old school members. Also, no financial incentive has been identified for the employee who will participate in the system and some employees fear that participation will cause them to increase their assigned tasks.

*Table 3 Total laptop delivered per bodies and unit at the governorate level*

group	stages	governorate	Total bodies	Total units	Laptop for bodies	Laptop for units	Total laptop
1	1	Cairo	2	98	10	392	402
	2	Suhag + Cairo	19	81	95	324	419
	3	Aswan + Giza	21	79	105	316	421
	4	Ismailia + Qalyubia	27	73	135	292	427
	5	Gharbia	14	56	70	224	294
2	6	El Monofeya+ El Fayoum	24	76	120	304	424
	7	Kafr El Sheikh+ Red Sea	22	77	110	308	418
	8	Dakahlia+ Port Said	24	76	120	304	424
	9	Damietta+ North Sinai	26	63	130	252	382
	10	Sharqia	12	78	60	312	372
3	11	Alexandria+ Minya	24	73	120	292	412
	12	Behera	12	77	60	308	368
	13	Suez+ Qiana	36	54	180	216	396
	14	Matrouh Beni Suef	36	44	180	176	356
	15	New Valley+ South Sinai Assiut and Luxor	24	57	120	228	348
Total			323	1062	1615	4248	5863

Source: <http://gfmis.mof.gov.eg/GFMIS/WorkPlaneGFMIS> (gfmis.mof.gov.eg, n.d.)

## 2. Internet line

While, the bodies and units were directed to communicate with TE-Data and issue a supply order for the line connection, but to facilitate the activation of the GFMIS, the use of GSM modem as an alternative to Internet lines was adopted. It then became clear that the purchase order would be centralized through the bodies. Still, Internet access has not been installed for all units.

Workers in the E-payment system suffered from the problems of access to the Internet through GSM modem for several reasons, including some units in remote places not covered by services, and another reason that the design of the buildings blocks the

reception of the signal. Consequently, GFMIS workers suffered like their online payment colleagues.

## **Training phase**

### **1. Laptops**

Table 3 shows the total delivered laptops per bodies and units at the governorate level. 5863 laptops were delivered to 1385 units and bodies. The Laptops were delivered at the Ministry building in Nasr City. Restrictions have been placed on the laptop that prevents the installation of any software or its connection to a printer and this is done only through the Ministry IT. This is because the laptops are equipped with an era of software necessary for the operation like Office and PDF reader. Moreover, the laptops are designed to work only with the Orange modem, which contrasts with electronic payment laptops, which also worked with Etisalat and Vodafone.

In addition, the laptops are only handed over to employees on the GFMIS and are in secondment to the authority. While the transfer of the custody of the laptop from one employee to another shall not be permitted unless the MOF is notified. Above all, the laptops are not linked to a function on the GFMIS, it enables all employees with different functions to access it, and that the staff of E-payment can access through it to accomplish their work. Finally, the laptops are practical, light and fast unlike previous laptops that were delivered to the units.

### **2. Password**

The username is classified with special numbers associated with each body code with the addition of a special letter for each function. On the other hand, A PIN has been created for each function in the system, delivered in a closed envelope to the trainees in the training lab. Moreover, PIN numbers are the key to the system interface. Each user has a single PIN as the PIN is a personal responsibility of each recipient and is not allowed to be traded.

In principle, The employees main point of view was, why there are no alternatives for users, The instructions issued specify that even in emergencies, the user must apply to the competent authorities to allow him to authorize another person to deal with the password, which may cause disruption of work in the absence of an employee for an emergency such as sudden illness cases

### **3. Training**

Table 4 shows the plan to equip and train all responsibilities, it is noted that the pattern followed in determining the dates of each activity, there is one week between each date. Although a training center under the Ministry of Finance was established as a tool for planning and implementing training more effectively, the training was in army centers. Furthermore, the training of budget officials preceded the process of preparation, so the laptops were not in their possession during the training. The Gesr Suez laboratories were allocated to the cash flow function and the rest were trained in Nasr City laboratories. bearing in mind that, the trainees were not divided according to their skill in using the computer, but according to the groups and stages.

Although the trainers were experienced and skilled in the Ministry's work procedures, the training was just a definition of the basic program interface, the basic rules

of work and the limits to be worked through, which many trainees considered insufficient. apart from that, trainees were not trained in many of the functions of the program interface, and some of the explanation was a simplified explanation, considering that many trainees are not familiar with how to deal with the computer.

In addition, the trainees were introduced to the possibility of making a report and how to create a report, but trainees were not defined on the difference between the reports and the function of each and how to interpret it, which is the most important. However, after the course, trainees discovered messages pop up from the program that they could not understand. Later after the complaint was repeated, leaflets explaining these messages were issued

*Table 4 Plan for equipping and training all responsibilities*

Group	stages	governorate	Training Week For budget responsibility	Preparation Week For all responsibility	Training Week For units	Activation Week for all responsibilities
1	1	Cairo	19/11/2017	26/11/2017	03/12/2017	10/12/2017
	2	Suhag + Cairo	26/11/2017	03/12/2017	10/12/2017	17/12/2017
	3	Aswan + Giza	03/12/2017	10/12/2017	17/12/2017	24/12/2017
	4	Ismailia + Qalyubia	10/12/2017	17/12/2017	24/12/2017	31/12/2017
	5	Gharbia	17/12/2017	24/12/2017	31/12/2017	14/01/208
2	6	El Monofeya+ El Fayoum	24/12/2017	31/12/2017	14/01/208	21/01/2018
	7	Kafr El Sheikh+ Red Sea	31/12/2017	14/01/2018	21/01/2018	28/01/2018
	8	Dakahlia+ Port Said	14/01/2018	21/01/2018	28/01/2018	04/02/2018
	9	Damietta+ North Sinai	21/01/2018	28/01/2018	04/02/2018	11/02/2018
	10	Sharqia	28/01/2018	04/02/2018	11/02/2018	18/02/2018
3	11	Alexandria+ Minya	04/02/2018	11/02/2018	18/02/2018	25/02/2018
	12	Behera	11/02/2018	18/02/2018	25/02/2018	04/03/2018
	13	Suez+ Qiana Matrouh	18/02/2018	25/02/2018	04/03/2018	11/03/2018
	14	Beni Suef New Valley+ South Sinai	25/02/2018	04/03/2018	11/03/2018	18/03/2018
	15	Assiut and Luxor	04/03/2018	11/03/2018	18/03/2018	25/03/2018

Source: <http://gfmis.mof.gov.eg/GFMIS/WorkPlaneGFMIS> (gfmis.mof.gov.eg, n.d.)

### **Activation phase:**

Each unit was activated on the system after one week of training for all responsibilities, which is an insufficient period where unit officials were asked to prepare the data of the units to be included in the system to start activation. The activation process was carried out by MOF representatives who had previously trained and activated their units by system officials

Activators were forced to deal with three types of units: Firstly, Units worked on the system previously and continued to enter data. Secondly, Units worked on the system previously and stopped data entry. Thirdly, Units have never dealt with the system. Because the activation of the system was several months after the beginning of the financial year it was impossible to enter all the data individually for the past months,

The data was entered for the system after it was blended, to facilitate the work on the system. that means that the previous months of activation cannot know the actual

statement. Besides, the technical problems related to the difficulty of accessing the system in the official working hours remained constant for a period until it became apparent only a few times.

#### **Paperwork:**

The financial regulations approved by the MOF determine the number of books to be used, the required reports and the dates of their delivery. It is assumed that the digital transformation reduces the paperwork, but the work has remained in the books until now. Despite some of the books no longer need it was stopped working as a checkbook, but many units have developed new books to suit the work with the system without the approval of the MOF.

Moreover, after accreditation, it became the duty of the unit to submit the old reports and create other reports from the system, which led to duplication of work.

#### **After the activation phase:**

Employees of the system faced many difficulties, including accounting restrictions, due dates, and closing times. It is worth mentioning that several publications and periodicals have been issued by the MOF as well as the Accounts and Financial Directorates Sector. along with illustrative examples of how to deal with and solve these difficulties. When the MOF set the maturity dates of the first section on wages, it did not consider that the payment of the social insurance fund dues to the employees of the government sector extends until the 15th of each month. As a result, payment orders are delayed because payment orders are linked to predetermined dates.

no clear limitations showing the limits of responsibility of each function on the system and this in all responsibilities and all systems ranging from GFMIS and GPS as well as pos to the system payroll. Therefore, Before the implementation of any of these systems, it was better to prepare a legal structure that clearly defined the relationship between each responsibility and the other. Moreover, Technical support and developers of GFMIS, always providing solutions may not be fast but in the, end the solution is provided

Some implementation decisions have not been effectively planned, and many remedies have been made after implementation. For example, the financial position for the end of the fiscal year 2018/2019 has been changed more than 6 times and each time the required adjustments have been made to balance.

### **Conclusion**

Findings reveal that some achievements have been made, but more needs to be done to overcome the challenges encountered in e-government development and implementation. Furthermore, Egypt is still lagging far behind other Arab countries, particularly Gulf countries that launched their e-government programs recently. Whereas Implement the GFMIS in gulf countries contributed effectively to the development of a comprehensive approach to the preparation of the budget while it works to facilitate the estimated process of expenditures and revenues. As revealed from best practices, with the emerging new government entities, data sharing among the various bodies is essential for providing accurate and real-time data and information on all government financial

information that helps provide efficient and effective services and sound economic planning.

Other imperative conclusions are drawn from the present case study bear relevance to the issue of financial discipline and compliance and reduce errors. However, this study concludes that there is a readiness to embrace Digital transformation in Egypt. Moreover, there is also a willingness to implement these new e-services, thus the prospects entail numerous benefits from leveraging the ICT advances in the governmental sector. Finally, the main lesson coming out of the Egyptian experience Political will can do what is necessary for digital transformation.

### **Recommendations:**

The study recommends, the Government may wish to give attention to several areas:

1. Develop government employees' skills before the process of digital transformation.
2. Work on bridging vulnerabilities before digital transformation and not after implementation.
3. Provide all required details for employees about how to accomplish their tasks after the digital transformation.
4. Aim low and hit, rather than aiming high and missing or "KISS: keep it simple, straightforward".

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