EGYPT TOMORROW ECONOMIC FORUM
Video Interviews

THE CORONA ECONOMY: CRISIS & OPPORTUNITIES

EPISODE NINE:
POST CORONA… GOVERNMENT AND CITIZEN

Interview with Dr. Ashraf Abdel Wahab,
Former Acting Minister of State for Administrative Development Egypt,
Digital Transformation Director, Public Sector, SAP

*Interview conducted by **Seif ElKhawanky**, CIPE Egypt Program Officer,*
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BACKGROUND: In response to the coronavirus crisis and the havoc it created on a global scale, CIPE's Egypt Tomorrow Economic Forum "Masr Bokra" launched a new video-based interview series title, 'Corona Economy: Crisis & Opportunities'. The series invites leading Egypt's business leaders, young entrepreneurs, academics, opinion-makers, policy makers, and leaders of think tanks to share their perspective on the evolving situation and implications for the economy in general, and the business environment. The series provide insight and analysis into the economic and social impact of the current crisis, both at the macro and the micro level, and attempt to glean insights into the path ahead.

The transcript below has been condensed and edited for clarity.

INTERVIEW AT A GLANCE:

1. Citizens awareness of the data protection law and privacy.

2. Digital Transformation needs an evolution in the administrative mindset to reconfigure public services, and realign the role of government agencies.

3. COVID-19 is fast-tracking digital transformation; countries that are not paying much attention to this issue will struggle and face challenges in providing services to their citizens, and will have their competitiveness undermined in the new environment.

Link to Arabic Video: https://www.facebook.com/CIPEArabia/videos/712628902820810/

CIPE: Welcome to a new episode of the series, 'Corona Economy: Crisis and Opportunities'. The series is hosted by CIPE's Egypt Tomorrow Economic Forum "Masr Bokra". Today's episode focuses on the digital transformation imperative in the current crisis— specifically public sector digitization to enhance public service delivery, reform public administration, and improve public policies. Our guest today, Dr. Ashraf Abdulwahab, is uniquely suited to address this topic as his professional career spanned across both the public and private sectors. Dr. Abdulwahab is a former Acting Minister of State for Administrative Development, he was directly involved in E-government since its launch, as well as other public administration and policy initiatives. He is currently the Digital Transformation Director, Public Sector at SAP, and earlier, he served as the Chief Technology Officer 4Afrika initiative at Microsoft.

Dr. Abdel Wahab, can you share with us your views on how COVID-19 is shaping governments' priorities. Do you see any shift or change in the delivery of public services to citizens? Will the COVID-19 outbreak accelerate digital transformation?

Dr. Abdel Wahab: Thank you for the kind introduction, it is always a pleasure to participate in CIPE's events. First, it is important to note that the digital transformation conversation has been taking place for a while, not only in Egypt, but all around the world; the COVID-19 outbreak imposed restrictions on the movement of people thus, the alternative became "going digital". Digital transformation has become not only a necessity, but an obligation and a duty on governments to enable the smooth operation of government agencies and the private sector; and facilitate the provision of public services to citizens. Perhaps one positive side of the pandemic is that it will accelerate the pace of digital transformation and help countries take giant leaps in that direction. COVID-19 is a pandemic that affected countries all over the world, and thus it has impacted the global economy, putting it at stake. In response, all countries have embarked on reviewing their priorities and exploring how best to secure the food and medicine needs of their citizens, as well as the manufacturing materials and inputs in order to protect the domestic economy. For example, in many countries, priorities have adjusted to the new environment; much more attention is now given to supporting the health care sector and developing the education sector in order to ensure the continuity of education during times of crisis. Additionally, more emphasis is now placed on localizing production in the technology and scientific research sectors, as well as in other strategic sectors, including agriculture to ensure domestic food security, and industry to secure alternatives for imported production inputs, which were affected by the significant supply chain disruptions. In short, governments across the world are revisiting and reformulating their priorities in response to the crisis, and the concept of globalization, as traditionally conceived, is now put in the crosshairs.

In Egypt, so far, the government is tackling the crisis in a very professional manner. This professionalism is evident in the way the government dealt with the crisis on the economic front, as well as in its efforts to provide financial support to segments of the population that experienced unemployment challenges due to the crisis, and ensure the availability of food and medicine for the people. Additionally, the government was able to strike a good balance between safeguarding the health and safety of its citizens and ensuring the continuity of production to the extent possible. It has also

become very obvious that the government has begun giving due attention to scientific research and is exerting effort to localize technologies related to developing serums and vaccines for novel viruses.

Perhaps there are a few silver linings amid this crisis: putting the spotlight on scientific research and its value to society; and seeking to secure domestic alternatives to imported production inputs, which were disrupted due to external factors.

When it comes to digital transformation, we find growing calls for accelerating the process. As you might know, digital transformation has many requirements; it is vital to have in place a robust and enabling technology infrastructure, including communications systems, security systems, and auxiliary systems that enables digital ways of working. Once such infrastructure is in place, we can proceed with developing the various tools needed for the government to digitalize its operations, whether these operations are related to carrying out its administrative, analytical or implementation functions or to providing services to citizens. The current environment accentuated the imperative for digitalization and emphasized the need to expedite the transformation process. Taking the leap into digital transformation is critical as we are facing a pandemic that is likely to remain a lurking danger as the virus is not going to disappear.

CIPE: Could you please expand on what you mean by digital transformation. What does it entail? What steps should the government take to ensure that it is heading in the right direction towards a successful transformation?

Dr. Abdel Wahab: As I stated, there are several key pillars to successful digital transformation. First, we need to have in place a robust technology infrastructure, otherwise, we cannot even move in the direction of transformation. Second, a paradigm shift is essential—a meaningful change in the prevailing administrative thinking, organizational structures, and institutional arrangements in government agencies—in other words embracing a digital mindset is key to transformation. I would like to stress that digital transformation goes beyond merely changing the way of carrying out existing bureaucratic processes.

Put differently, transformation is not about switching from manual to automated processes without rethinking processes; this will not result in any improvement in the quality of services or the speed of delivery. An evolution in the administrative mindset means that agencies are able not only to carryout transactions in an electronic form, but also to analyze the data collected from its various operations, and link the streams of massive data sets originating from structured or unstructured sources to understand citizens' needs and priorities, and measure their satisfaction in order to improve government performance in service delivery.

Ensuring that citizens can effortlessly access services is within the government's manageable interest and should not present significant challenges; the government already has access to all the relevant data needed to provide services and thus, it can leverage this wealth of data to provide citizens with easy access to these services.

Besides the need for an evolved mindset to reconfigure public services, there is also a need for a new mindset to revisit and realign the role of government agencies that

are involved in providing public services; these agencies need to move beyond the delivery of services and start focusing on taking advantage of the data they gather and use analytics to enhance citizen satisfaction and improve quality of services delivered; engaging seriously in analyzing data will help agencies identify critical issues that otherwise might not be apparent, including the need to provide additional support to individuals, or incidence of corruption or fraud related to service delivery or services that could benefit from improvements or broadening in order to reach segments of the population that were overlooked.

Fully embracing this role will allow the government to gain new levels of insight and a clearer understanding of the needs and priorities of citizens, as well as the challenges citizens encounter in accessing services; it will also enable the government to leverage massive streams of up-to-date and accurate data in a manner that results in improved planning, resource allocation and decision-making, and ultimately, the delivery of responsive services that meet the citizens' satisfaction.

So, to reiterate, digital transformation is not about turning manual processes into electronic ones, it is about transforming organizational culture; merely acquiring digitization tools by any public or private entity will not be enough to achieve meaningful improvements in their processes- you have to acquire a digital way of thinking to realize the desired improvements. In this regard, it is critical to have in place an enabling legal and regulatory framework to govern cyber security to ensure data protection and privacy considerations; it is also important to find the right balance between the right to privacy and the need to collect information so that the government is able to extend services to citizens. For example, in these times of crisis, government might find it critical to acquire more detailed information about citizens' whereabouts and movements to mitigate infection; however, citizens are likely to perceive this level of detail as intrusive and encroaching on their privacy. Thus, sometimes, it becomes imperative that citizen share detailed personal information with government, however, this should be within the confines of the law.

CIPE: *On the value of privacy, how can a citizen ensure the privacy of the personal data shared with the government?*

Dr. Abdel Wahab: Definitely this issue should be regulated by law. Egypt has in place a data protection law, which allows the government to obtain data, however, the law mandates that citizens should be informed of why the data is being collected and how it will be processed, In addition, it ensures that collected data will be only processed in a manner that is consistent with the intended purposes. These elements should provide assurances to citizens when sharing personal data with the state. In this regard, it is important that citizens be made aware of the law and the guarantees it provides.

Governments around the world are now increasing the pace of digital transformation by expanding the scope of the transformation beyond the provision of public services; many countries are advancing digitization of education and the health care system; online banking is rising and e-commerce, particularly in the food and pharmaceuticals sectors, have recorded a five- to ten-fold growth, which supports the argument that

new modes of shopping are developing and growing. With the significant decline in the number of customers who shop in stores, retailers who do not have online platforms are struggling and facing the risk of bankruptcy. In contrast, retailers who developed online platforms, while still affected by declining in-store shoppers, are nevertheless able to compensate this loss through online sales.

This trend, which is expected to continue growing, is facilitated and advanced by online payment systems; I would like to note here that in Egypt, besides E-payments options, we have the option of paying upon delivery for online purchases, which is driven by buyer-seller trust. E-payments have gained momentum and all countries have significantly prioritized the adoption of E-payments systems. This issue is particularly relevant to the promotion of financial inclusion. An E-payment system allows individuals to pay electronically, and also enables beneficiaries of government assistance to access benefits without having to appear in person at government offices since agencies can electronically transfer the assistance to their bank accounts, and send them electronic notifications to that effect; holding an account at a bank and having the option of conducting electronic transactions is very critical in these circumstances. Thus, E-payments systems can help bolster financial inclusion and provide an opportunity to reach various unbanked segments of society.

Related to the issue of E-payments is electronic identification (facial recognition technology). While national ID cards are used as a primary proof of identification in face-to-face transactions, this cannot be the case in digital transactions. Thus, it is important to develop secure means to help with identity verification in the digital environment in order to expand the number of transactions that can be conducted online. This process can also present new opportunities in data analytics, whereby the government, through analyzing detailed and relevant information about individuals or households, can gain more insight and understanding which can help enhance economic planning.

Egypt is moving in the direction of digital transformation; in fact, the Ministry of Communications and Information Technology, as well as mobile and internet service providers have undertaken a number steps to bolster internet services in Egypt, including providing the infrastructure needed for supporting remote work. However, we need to move forward and provide more public services online, and at the same time ensure that they are user-friendly; I believe that we are going to see more of this in the coming period.

At SAP, our products are primarily industry-focused, offering solutions to some 25 industries; in response to the crisis, we examined the impact of COVID-19 on the different industries. Obviously, all industries are affected by the current crisis, however, some are positively affected, while others are negatively affected, and some industries have taken the impact much harder than others.

Thus, developing business models to generate new revenue streams has become all the more an imperative, especially for industries that were hit hard such as tourism industry, which is expected to continue struggling until mid-2021 due to the restricted movement between countries, and the lack of clarity about the new travel industry ecosystem that will emerge. For example, during these times, the tourism industry can capitalize on its treasure trove of antiquities and offer virtual tours, which promises to generate some revenues.

In fact, the need to consider new business models and diverse ways of generating new revenue streams using digital solutions applies to all industries as the world will never be the same after COVID-19; in this regard, we need to develop new electronic alternatives and online platforms to provide online services in a secure and stable manner.

CIPE: Let's move to address Egypt's preparedness for digital transformation. You have noted that the government has taken some positive steps in that direction, whether by investing in critical infrastructure or collaborating with the private sector towards that end. Could you tell us more about the costs/benefits of digital transformation, noting that it will require big investments. In your view, is the government ready to make such investments, and what are the expected economic returns? I would also like you to address the readiness of society to fully embrace this transformation, especially if the government fast-tracks digital transformation.

Dr. Abdel Wahab: The costs that the government bears when investing in digital transformation are never to be considered futile costs, on the contrary, the returns from such investments are quite high. First, investing in digital transformation results in reducing the pressure on government agencies that interacts with citizens as fewer citizens will conduct their transactions in person; this should translate into improved quality of services as employees will have more time to better serve the visiting individuals. Second, the government will be able to reach citizen in a more efficient and effective way; for instance, if the government wants to provide assistance to casual workers, it can simply designate a website for eligible individuals to register online, verify the information submitted, and transfer the assistance electronically, without the need for the recipient to claim the assistance in person. These two examples reveal that by leveraging technology, you can realize cost savings at two ends: the government will enjoy savings realized from cutting down on rent and utility costs as there will be fewer citizen outlets, and citizens will save on transportation costs, and at the same time, there is the added benefit of reducing air pollution from transportation. Additionally, digital transformation enables the government to rationalize its resources; with the wealth of data collected over time, applying big data analytics will help the government with evidence-based planning, and enable it to make better investment decision, which are more responsive to the needs of its citizens and relevant to investment needs in the different geographic regions. Consolidating government-citizen interaction and providing new electronic venues to communicate with citizens is another expected benefit from investing in digital transformation.

We have to acknowledge that some segments of the society might not be as comfortable or ready to embrace these new channels; those individuals can continue to access services by visiting government offices. In spite of this variance in digital readiness within society, the government can still provide options appropriate to different levels of readiness, while keeping an eye on digital transformation. Youth represent fifty percent of Egypt's population; this demographic factor suggests that a significant proportion of the population is ready to embrace digital transformation, which is a fact confirmed by internet and social media statistics that indicate heavy use by youth (approximately 40 million Egyptians use mobile internet services). Thus, using novel technology is not going to present a challenge to many segments of

society, and with time, this trend will prevail and the number of government offices that provide face-to-face service delivery to citizens front-offices will significantly decrease. Perhaps in ten years, we will witness reinvented government agencies to meet these evolving requirements. With this shift from in-person transactions to digital interactions, government will provide citizens with expanded interactive digital channels to access services and reduce face-to-face interaction. At the same time, back-offices will also be reinvented and the bulk of their operations will focus on using data analytics tools to provide meaningful analysis of the large sets of data that the government collects- validating its accuracy, analyzing it, assessing its meaning, classifying it, categorizing it, capturing patterns and generating insights and new knowledge. I would even suggest that with time, people will only want to interact through digital channels.

In this regard, I would want to say a few words about artificial intelligence, which permeates all aspects of our lives today. While AI has major potential advantages, yet it has two major cons: it is data-driven algorithms, which require massive amount of data, and it requires heavy computing power. On the other hand, cloud computing offers massive processing capability and data storage capacity as it allows large volumes of both structured and unstructured data to be stored in cloud storage infrastructure. Cloud computing has made AI algorithms simpler and faster, producing results within seconds of analyzing a text, or speech or image. Many countries are taking advantage of these developments and are already using AI tools to improve performance. For example, AI is used to help reduce tax fraud by efficiently detecting cases that could entail fraud, as well as to identify eligible recipients of government assistance by fetching data from different sources and analyzing it to verify eligibility (e.g. vehicle ownership, property ownership, utilities), predict outcomes, and facilitate human-like communication between bots and individuals; SAP has provided its services in AI uses in different countries.

To conclude, COVID-19 is fast-tracking digital transformation; countries that are not paying much attention and neglecting this issue will struggle and face challenges in providing services to their citizens, and will have their competitiveness undermined in the new environment; countries that will speed up their digital transformation will be the ones ahead, interacting with their likes, while other countries that are far behind on digital uptake will be left behind.

CIPE: *Thank you Dr. Abdulwahab for joining us today and sharing your insights and knowledge; it is always a pleasure to engage with you.*

Dr. Ashraf Abdel Wahab is a full professor of computer engineering, Electronics Research Institute (ERI), Cairo, Egypt. He received his M. Sc. in 1988, Faculty of Engineering, Cairo University in Artificial Intelligence, and he earned 2 PhD degrees, one from Cairo University, and another from George Mason University in Virginia on Artificial Intelligence, Machine Learning, and Evolutionary Algorithms. Beside his research activities, Dr. Abdelwahab used to teach Computer Science courses in Egyptian and American universities .

Dr. Abdel Wahab was a member of the E-government Initiative team since its launch in 2001 managing back-office applications, and ICT4D projects. In August 2006, he was appointed as the Deputy to the Minister of State for Administrative Development (MSAD), responsible of supervising, monitoring and coordinating E-government and organizational development initiatives. In March 2011 and till August 2012, he was appointed as Acting Minister, MSAD.

Dr. Abdel Wahab supervised the implementation of many national projects, like: Family Database and Family Smart Card, Quality of Government services, and his latest achievement was the IT infrastructure for the Elections Processes.

Dr. Abdel Wahab joined Microsoft in December 2012 as the Corporate Affairs Manager, Egypt & North Africa, and starting September 2014 he moved to Dubai as the Corporate Affairs Director for Egypt and Gulf. Recently, he has been appointed as Chief Technology Officer (CTO) 4Afrika initiative, based in Cairo.

In January 2019, Dr Abdel Wahab was appointed as the Digital Transformation Director, Public Sector, Egypt for SAP.

Member of several committees, two of which are the Advisory Committee to the Supreme Council for Digital Transformation, and the Supreme Committee for Administrative Reform, headed by the Prime Minister.