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Advanced National Skills for the User-Centric Agile Public Sector

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Abstract

Agility in the public sector is gaining popularity as governments have realized that citizen-centered service delivery is essential to meet their populations' demands and expectations. Agile government requires a highly skilled workforce that is fully prepared to respond to emerging challenges. The UAE government has identified 12 advanced skills as part of its strategic initiative to ensure any skills gap is addressed. This study measured these 12 advanced skills in the Dubai government as assessed by its employees. The moderating role of user-centricity has also been suggested. The paper proposes an agile government skills measurement framework. The framework provides a guideline to study the relationship between advanced skills and agile government. The findings suggest that the majority of the public sector employees in Dubai possess a high level of advanced skills.

Keywords: Agile Government, Advanced Skills, User-Centricity, public sector

1.0 Introduction

Rapid technological advancements, drive towards sustainability, socio-demographic shifts, personal purpose and responsibility, changes in the mode of doing business, economy, and the distribution of wealth are some of the mega trends driving the future of jobs and skills (Abu Dhabi Sustainability Week, 2019). These trends will also impact the way people develop skills and their abilities to adapt and take advantage of new opportunities. Typically, many countries that rank highly on the World Competitiveness Index (World Economic Forum, 2019) and Global Innovation Index (GII, 2019) are economies that have embraced national strategies to achieve agility. Moreover, agile governance through enhanced business opportunities and labor mobility drives a competitive advantage for many of these countries. Indeed, the role of the government is crucial in building conditions which are favorable to domestic and foreign businesses.

Nurturing, attracting and developing the right talent is the first step to achieve development goals. Investment in the formal education is the basis for growing talent. The education system must provide blended learning and equip students with the necessary skills which are compatible with the industry needs. However, due to the rapid advancements in technology, it may be difficult to predict what specific skills will be required a decade from now, but what is critical is teaching people how to continue their journey towards learning. A lack of the right skills may cost nations, i.e. losses that could otherwise be prevented. The government must, therefore, build opportunities for people to develop their existing skills, learn new skills, and become life-long learners.

Governments also need to respond faster to citizens' expectations, such as the expectation that public services will be accessible (24/7), customized, and personalized. These expectations are created by the so-called 'social media' generation. Seamless user-centric experiences on social networking platforms such as Facebook, Twitter, WhatsApp as well as online marketplaces, like Amazon and Alibaba, have had a spillover effect such as increased demand for government e-services and smart government platforms. Under this scenario, the futuristic governments have prioritized the digital transformation, big data adoption, Smart City solutions, augmented reality, and digital identity. When combined, these factors are a compelling reasons to develop internal capability and agile skills (Mergel, Gong, & Bertot, 2018).

2.0 Agile Government Skills

Agility refers to a methodology that promotes maneuverability and speed of response. Cockburn defines agile methods as techniques that allow a team to track rapid changes in people, technology, and business (Cockburn, 2006). Conboy and Fitzgerald defined it as the "continual readiness of an entity to rapidly or inherently, proactively or reactively, embrace change, through its collective components or its relationships with its environment" (Conboy & Fitzgerald, 2004). Agility in the government distinguishes the essential requirements for continuous transformation to deliver government services in order to meet and anticipate the needs of the society (Parker & Bartlet, 2008). Although the concepts of agility vary, they contain common subjects such as efficiency, cost-effectiveness, flexibility, and quality (Mergel, Gong, & Bertot, 2018). The concept first originated from the software development and the private sector and, more recently has made its way to the public sector with the application of e-government technologies, big data, and smart city initiatives. Governments have recognized that by embracing agility and increasing openness, they can represent people more effectively. Agile government is a developing area of research and practice. The literature shows that there are advantages and challenges in applying agile techniques in the public sector. On the one hand, governments and the people they serve benefit from increased performance, better designed applications and cost savings. On the other hand, agile deployments require capacity, skills, culture, policy structures, and leadership that governments may not possess (Mergel, Gong, & Bertot, 2018).

A number of countries have launched somewhat identical initiatives to improve the skill sets of their future workforce. Singapore's SkillsFuture program (Singapore, 2019) offers a number of tailored programs for professionals at all stages of their careers, as well as employers and training providers, but its e-services also help encourage individuals to adopt a lifelong learning mindset. Bahrain's Tamkeen offers a range of professional certifications and flexible training options through an interactive user portal to Tamkeen students, job seekers, and employees (Tawasul,2019). Skills Development Scotland works with organizations to offer tailored advice and solutions based on their personal needs, giving employees access to a service that will help them gain more knowledge, confidence, and competency in a challenging digital environment (Scotland, 2019). Likewise, Future Skills Canada, Skills Training Australia, and the Advanced Skills Program of the UAE, are notable initiatives.

Within the context of UAE, Stephens, Spraggon, and Vammalle identified 12 agile government skills using a design thinking approach. These skills were divided into three categories: policy entrepreneurship skills, boundary spanning skills, and transformational skills (Stephens, Spraggon & Vammalle, 2019). They identified a need to carry out empirical research to establish the relationship between this skill set and agility in the government, this paper is a first attempt to address this relationship.

3.0 User-Centric Agile Government

The concept of 'user-centricity' refers to users having more control (PC Magazine, 2019) and considering the user requirements, needs, profile and preferences during all aspects of service design and delivery process (Boucadair & Jacquenet, 2015). In the provision of public service provisions, terms such as citizen-centric, user-centric, or user-needs are most widely used. The idea of involving citizens in developing public services is not new, and as 'customer focus' has been buzzword of management consultancies for decades. However, the arrival of the digital government agenda, and the subsequent bottom-up development of new online services has placed the idea of user-centricity at the focal point of both policy making and service design (OECD, 2017). Gupta (2006) describes it as turning the focus of government around by looking at the service delivery through the eyes of the citizens (so that the needs of the citizens come first) rather than from an operational standpoint, or other imperatives of the government system. He further explains that a citizen-centric approach enables government: to achieve efficiency and improve service delivery; enhances usage of online services (e-government); increases investment; improves citizen satisfaction with government services; and hence, improves quality of life.

User-driven service development and the delivery of digital public services have become a central focus of policy makers. The importance of user-centricity in service design is repeated by referring to user involvement, empowerment, collaboration or personalization. In particular, participatory design projects haven taken empowerment to be one of the key objectives. Hence, not surprisingly, policy makers and other public sector stakeholders have started to promote civic participation in digital public sector innovation. Such participatory approaches go by labels such as co-production of public services or co-design. Recently, the term co-creation has gained attention and is now considered "a cornerstone for social innovation" in the public sector. User-centricity is identified as one of the six core skills for public sector employees by the OECD (OECD, 2017).

4.0 UAE Advanced Skills Strategy

The Government of the UAE developed a National Program for Advanced Skills (NPAS) to promote lifelong learning and to ensure the national workforce is adequately trained to tackle future challenges. The program seeks to position the UAE among other advanced nations in future skills development. It also strives to achieve happiness and adopt best practices. Education is a top priority of the leadership and efforts are being made

to make it affordable, accessible, and adaptable to future market requirements. The strategy represents the government's constructive and agile vision and has five main themes and a range of initiatives.

First, the strategy defines the concept of advanced skills which are based on international frameworks and skill models needed by the UAE government and the employment market. Twelve different skills are divided into four main categories: basic skills, competencies, personal traits, and specialized skills. The second component comprises mechanisms for evaluating skills. The third element identifies the target groups. The fourth component includes programs to ensure stakeholder engagement, to build strong private sector partnerships, and to improve the quality of training and education programs. The fifth component is to inspire the community by raising awareness of the importance of advanced skills and by providing opportunities to acquire advanced skills and for continuous learning to lead personal growth (Gulf News, 2019). Exhibit 1 provides a diagrammatic representation of the 12 advanced skills which are color coded where Grey stands for three foundation literacies, Blue for four competencies, and Green represents the five character qualities and in addition there are the specialized skills.

Exhibit 1: UAE Advanced Skills

Source: Authors

4.1 Initiatives and Target Segment

The National Program for Advanced Skills (NPAS) is targeted towards students and employees in the private and public sector in order to provide industry/sector specific technical skills and opportunities for acquiring new skills with an aim to meet the future market needs. There are four initiatives under the NPAS (Hatem, 2019):

- **'My Skills, My Future':** an online interactive self-assessment game to find out an individual's core skill
- **'My Skills 12x12':** the campaign consisting of workshops, lectures, and training sessions.
- **Skills Cube:** a platform to learn and share expertise.
- **Advanced Skills Council:** The Council is made up of nine federal and local government entities tasked to raise aware and provide opportunities to learn advanced skills through continuous learning

The skills common to all sectors are classified along three main categories, namely, Foundational Literacies, Competencies, and Character Qualities. Additionally, there will be a fourth category covering Specialized Skills for each individual sector. To support the strategy, a number of initiatives for improving advanced/future skills have been introduced by the government and are listed below (UAE, 2019):

- **National Program for Artificial Intelligence**
- **Training programs for Government Employees**
- **UAE AI Camp**
- **UAE AI Internship Program**
- **First Bachelor Degree in Artificial Intelligence (AI)**
- **ICT Fund**
- **Ibtekr Platform**
- **The National Internship and Summer Program 'Wajehni'**
- **The National Program for Emiratization (Tawteen)**
- **Emirati School Model**
- **One Million Arab Coders Initiative**
- **Madrasa - the eLearning Platform**
- **The UAE Hackathon**
- **EmiratesSkills**
- **The Emirates Youth Professional School (EYPS)**

However, it is unclear to what extent these initiatives have contributed in building the required skills. Therefore, there is a need to carry out academic research to collect

data and empirically evaluate these government initiatives. Focusing on the NPAS skill categories, this study is a first attempt to evaluate the existing skill level of the employees in the public sector of Dubai.

5.0 Research Framework for Agile Government Skills

The National Program for Advanced Skills (NPAS) is expected to improve future skills of the UAE workforce. A regular monitoring and assessment will be required for each initiative. The conceptual framework shown in Exhibit 2 may provide a starting point to assess the impact of the NPAS on the public sector collectively or by using each element separately. Naturally, all employees are not expected to master all of these skills. For example, high level of leadership, scientific, and financial literacy may not be required for many job-related tasks. However, the skills strategy driving the NPAS suggests that some degree of basic knowledge across all of these skills will be required to perform future jobs effectively. This study design does not directly measure agility in the government, but it is hypothesized that a public sector workforce equipped with these skills will prove effective in promoting agility in the government.

Exhibit 2: Agile Government Advanced National Skills Framework
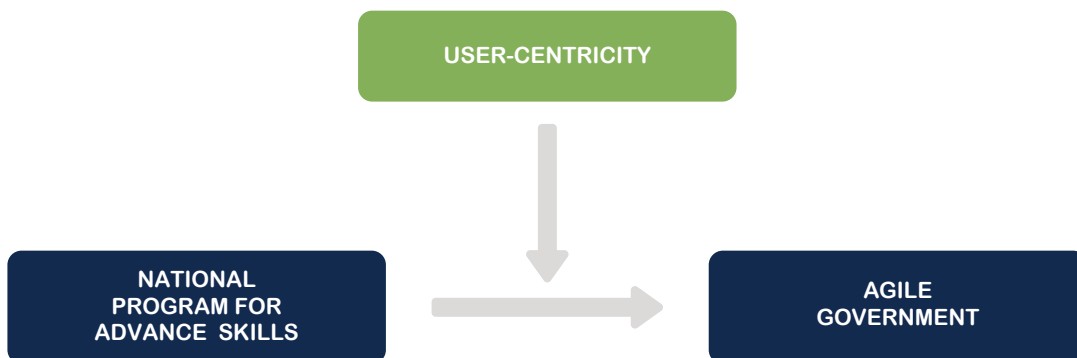
Source: Authors

6.0 Methodology

The questionnaire included the 12 advanced national skills (illustrated in Exhibit 1) that were developed by the Ministry of Education as part of the National Advanced Skills Strategy. The data collected was part of a larger dataset that included the six skills that make up the innovation skills framework for public sector employees developed by OECD. The other skill areas tested during the survey were related to policy entrepreneurship skills, boundary spanning skills, and transformational skills and included: iteration, data literacy, user centricity, curiosity, storytelling, and insurgency (disruption).

The population consisted of all Dubai government employees regardless of their salary grade. The questionnaire was distributed through Dubai Government Advertorial, an email service provided by Smart Dubai (Dubai, 2019). There are approximately 90,000 employees working in 44 government entities (Dubai, 2019). A total of 373 usable responses were recorded which is slightly lower than necessary for a confidence level of 95%. Responses were recorded on 1-5 Likert scale (Likert, 1932) where 1 = low and 5 = high. Prior to the distribution, a pilot test was conducted understand the readability and understanding as it was translated from English into Arabic, which is the official language of the UAE government. This allowed respondents to use their preferred language. An online survey tool, Qualtrics, was used to collect data which was later analyzed using Microsoft Excel 2016.

7.0 Preliminary Findings

The respondents consisted of 56% expatriates and 44% Emiratis out of which 64% were male and 36% were female. The majority of the respondents were aged between 25-54 years and possessed a Bachelor's degree (45%) or higher qualification (31% had a Master's or a PhD degree). The length of experience ranged from 1-15 years, with the majority of the respondents reporting that they had been working for the government for at least 4 years.

Exhibit 3 illustrates the perceived self-assessment of the skills level of individual across the 12 skills included in the NPAS. The data indicates that employees in the Dubai public sector possess high skill levels. In all categories, other than literacy, at least ¾ of respondents reported high skills (a response of 4 or 5 on the Likert scale). Having a growth mindset was the most highly ranked of the skills possessed, closely followed by collaboration, communication and empathy. Respondents were not as confident

in reporting high skill levels for the three literacy categories (scientific, financial and technology) but even the lowest of these (financial literacy) saw 62% of respondents reporting that they possessed high skill levels. While 70% reported high competency in scientific and technological skills. Only a relatively small proportion of respondents (in most categories less than 5%; in the literacy categories this ranged from 7-9%) reported low skill levels. This indicates that public sector employees in Dubai appear to be relatively well equipped with the future skills identified by the NPAS. Therefore, the public sector workforce would appear well prepared to meet future government needs and to serve its residents with the required skills that may promote agility at all levels of the government services.

Exhibit 3: Preliminary Results: Self-Assessment Across 12 Advanced Skills
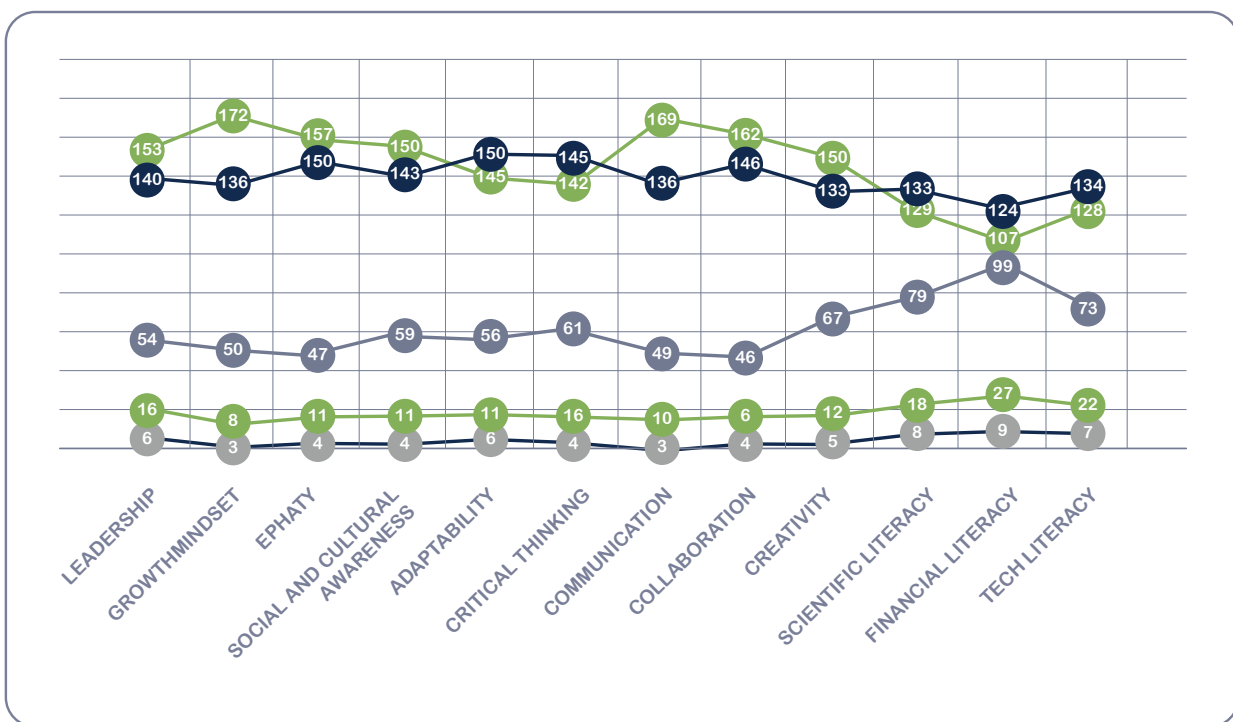
Note: the Likert scores are represented for each category by color

Below we expand on how the different categories within the NPAS are defined and how the respondents assessed their skill levels for each category.

7.1 Leadership

Leadership is the ability to effectively manage and inspire a team of people by assigning goals, aligning team members and supporting them in pursuit of those goals. When asked about the leadership skills, the majority of the employees believe that they possess a high level of leadership skills (79%). Only 14% reported an average leadership skill level (3 on the Likert scale), whereas a very small number (7%) of employees reported having a low level (1 or 2 on the Likert scale).

7.2 Growth Mindset

A growth mindset is defined as the ability to believe in and pursue self-development through dedication and hard work. The vast majority of employees (83%) believe that they are growth minded and only a relatively small number of employees (13%) reported they lack the ability of self-development and hard work. This suggests that there is a high degree of self-development, dedication, and determination to work harder among Dubai government employees that responded to the survey.

7.3 Empathy

Empathy is the ability to be aware of others reactions and understand their behavior from their point of view. 82% of the respondents reported they have the ability to understand and share the feelings of co-workers. The remaining employees (13%) reported average empathy towards others (13%) while a small fraction (5%) reported only a very low level of empathy.

7.4 Social and Cultural Awareness

Social and cultural awareness is the ability to navigate conflict, reconcile differences, and interact with other people in a socially, culturally and ethically appropriate way. A total of 79% respondents believe that they understand the sensitivities of cultural differences and have the ability to reconcile differences and successfully interact with people from diverse cultural and ethnic backgrounds.

7.5 Adaptability

Adaptability is defined as the ability to change plans and opinions in light of new information, circumstances, or technological advances. 80% of the Dubai public sector employees responding to our survey perceive they are adaptable to changing needs and environment. Whereas, 15% of them reported lower levels of adaptability. Those employees who find it hard to learn new skills and technologies must realize that change is bound to occur and they should be willing to learn to adjust quickly and smoothly.

7.6 Critical Thinking

Critical thinking is the ability to make complex connections and be able to identify, analyze, and evaluate situations, ideas, and information to formulate responses and solutions. When asked about individuals' critical thinking skills, 77% claimed that they have highly developed skills,16% placed themselves at a moderate level, and 7% self-reported as having a low level of critical thinking skills.

7.8 Communication

Communication is the skill related to the ability to listen, understand, convey, and alter information to different audiences. Good communication skills are considered an important element of success. A very high percentage (82%) of Dubai government employees claim to have high communication skills; 13% of respondents reported that they have only moderate level and 5% a low level of communication skills.

7.9 Collaboration

Collaboration is defined as the ability to work in a team toward a common goal, adjusting responses to others' actions as needed in order to advance group goals. While responding to the question regarding the ability to collaborate in teams, 83% of the employees feel they are highly collaborative while working in teams or groups. Just over 12% are of the view that their ability to collaborate is relatively modest, while the remaining 4% do not appear comfortable with collaboration.

7.10 Creativity

Creativity, as defined in the advanced skills, is the ability to imagine and devise new, innovative ways of addressing problems, answering questions or expressing meaning through the application, synthesis, or repurposing (new use) of knowledge. 76% of the respondents reported a high level of creativity; nearly 18% reported only average creativity levels and approximately 6% a low level.

7.11 Scientific Literacy

Scientific literacy is the ability to use scientific principles to understand one's environment and test hypotheses. 70% of respondents believe that they have a high level of scientific literacy and 21% consider themselves to be at an average level, whereas some 9% were not confident in scientific literacy.

7.12 Financial Literacy

The ability to understand and apply conceptual and numerical aspects of finance in practice. Financial literacy is rated at the lowest level as compared to the rest of the competencies (62%). This may be an indicator that most of the employees consider it as a specialized area beyond their educational background and may not be directly or indirectly related to their areas of expertise.

7.13 Tech Literacy

Tech literacy is defined as the ability to understand emerging technologies to effectively access and manipulate data and find and share information to enhance learning and working environments. Similar to the scientific category, 70% of respondents consider themselves technologically literate, 20% believe to place themselves at having an average level, and the remaining 9% reported only low levels of technology related skills.

8.0 Conclusion

In a nutshell, a well-trained and highly skilled workforce is essential for the UAE to fulfill its ambition to be one of the most innovative countries in the world. The preliminary research reported here suggests that public sector employees in the government of Dubai perceive that they have high levels of competencies cross all 12 categories of the National Program for Advanced Skills. However, the results indicate that the foundation literacies, scientific, financial and tech, literacies should be prioritized by public sector trainers.

Findings in this study are only at a preliminary stage and may be limited and skewed positively because of the nature of the survey design (self-reporting) and /or the structure of the sample. The next phase of this project we are looking at the relationship between the NPAS categories and alternative categories, specifically the OECD innovative skills framework. Similarly, we plan to look at how the NPAS framework complements other notions of public sector skill sets, such as policy entrepreneurship skills, boundary spanning skills, and transformational skills. We will also evaluate relationships between different clusters of skills and the role of user-centricity in more detail. Future research may be carried out by using experimental research design using qualitative measures.

References

Abu Dhabi Sustainability Week. (2019). ADSW future skills 2030 report. Retrieved from https://masdar.ae/-/media/adsw/the-week/youth-4-sustainability/adsw-future-skills-2030-extended.pdf

Boucadair, M., Jacquenet, C. (2015, January 2020). What is user-centric. Handbook of Research on Redesigning the Future of Internet Architectures. IGI Global. Retrieved from https://www.igi-global.com/dictionary/context-aware-content-delivery/31257

Conboy, K. and Fitzgerald, B. (2004). Proceedings of the 2004 ACM workshop on interdisciplinary software engineering research (WISER). California. pp. 37-44

Cornell University, INSEAD, and WIPO. (2019). The global innovation index (GII): creating healthy lives—the future of medical innovation. Ithaca, Fontainebleau, and Geneva. Retrieved from https://www.wipo.int/publications/en/details.jsp?id=4434

Dubai. (2019). Smart Dubai. Retrieved from https://www.smartdubai.ae/

Dubai. (2019). Dubai government departments. Retrieved from https://mediaoffice.ae/en/public-info/dubai-government-departments.aspx

Encyclopedia PC Magazine. (2019, December 14). Retrieved from https://www.pcmag.com/encyclopedia/term/59259/user-centric

Future skills 2030 report: Abu Dhabi sustainability Week. (2019, December 15). Retrieved from https://masdar.ae/-/media/adsw/the-week/youth-4-sustainability/adsw-future-skills-2030-extended.pdf

Gupta, Devendra. (2006). Citizen-centric approach for e-Governance. Retrieved from https://www.researchgate.net/publication/228593009_Citizen-centric_Approach_for_e-Governance

Hatem, Mohamed. (2019, May 29). 'My Skills 12x12 Campaign' launched to boost advanced
skill building among UAE professionals. Emirates News Agency.
http://wam.ae/en/details/1395302765486

Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology. 140:   1–55.

Mergel, I., Gong, Y., & Bertot, J. (2018). Agile government: systematic literature review and future research. Government Information Quarterly, 35(2), 291–298.

OECD (2017). Skills for a high performing civil service. OECD Public Governance Reviews, OECD Publishing, Paris.

Parker and Bartlet (2008). Towards agile government. Retrieved from http://isca-web.org/files/Active_Network_2013/Desk_Research/8_Agile_Government.pdf

Singapore. (2019, December 14). Singapore skills future. Retrieved from https://www.skillsfuture.sg/

Scotland. (2019, December 14). The skills development Scotland. Retrieved from https://www.skillsdevelopmentscotland.co.uk/

Stephens, Melodena, Spraggon, Martin, and Vammalle, Camila (2019). Agile Government. Policy Council Paper, no. 13. Mohammed bin Rashid School of Government. Retrieved from https://www.mbrsg.ae/getattachment/eb10cc47-8ed3-4e8c-bb0e-69afe615cf90/Agile Government-Agile-Skills-Report.aspx

Tawasul (2019). Tamkeen. Retrieved from https://www.tamkeen.bh/

UAE Government. (2019). Future skills for youth. Retrieved from https://government.ae/en/information-and-services/jobs/future-skills-for-youth

UAE launches national strategy for advanced skills. (2019, May 26). Gulf News. Retrieved from https://gulfnews.com/uae/government/uae-launches-national-strategy-for-advanced-skills-1.64203927

World Economic Forum. (2019). The global competitiveness report. Geneva: World Economic Forum. Retrieved from http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

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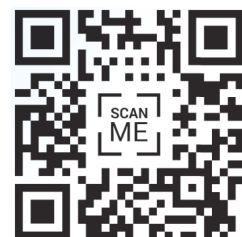# Research at The Mohammed Bin Rashid School of Government

The Mohammed Bin Rashid School of Government (formerly Dubai School of Government) is a research and teaching institution focusing on public policy in the Arab world. Established in 2005 under the patronage of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the United Arab Emirates and Ruler of Dubai, in cooperation with the Harvard Kennedy School, MBRSG aims to promote good governance through enhancing the region's capacity for effective public policy.

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