





Delivering Government Services Innovation Through Data Analytics



Driving Excellence Across Government Services Worldwide

Produced by GX.ae

التجربـــة الحكوميـــة GOVERNMENT EXPERIENCE Knowledge Partner:



Applied Innovation Institute



### Context

For governments, delivering happiness has become an important goal. The World Happiness Report and Index, published by the United Nations Sustainable Development Solutions Network, is a clear indication of the increasing focus on wellbeing. In Bhutan, Gross National Happiness (GNH) is a constitutional goal. New Zealand's national budget is wellbeing-driven<sup>1</sup>. Since 2016, the United Arab Emirates has had a Minister of State for Happiness and Wellbeing.

Governments' ability to deliver on happiness is being streamlined and expanded through technology-led innovations. Smart devices, Big Data analytics, and the Internet of Things are part of a new wave of government service excellence enablers. Big data and artificial intelligence (AI), in particular, offer breakthrough ways for governments to measure and deliver happiness. The UAE Federal Government Happiness Meter is a strong case study of how new technology, in concert with process solutions, can successfully increase happiness around government services.

The UAE Federal Government's Happiness Meter is a feedback and assessment system that enables 100% of federal services in the UAE to collect and respond to real-time customer (citizens, residents, visitors) feedback interactions. It is enabling UAE government services to deliver on happiness goals quickly and efficiently.

The Happiness Meter was developed to solve key challenges in customer and government service interactions, that included a lack of consistent data, real-time feedback, and ability to identify reasons for customer unhappiness. As of April 2019, the Happiness Meter has been deployed across all government entities that interact with customers, through customer service centers and multiple online channels. The Happiness Meter has recorded over 5.5 million user evaluations and showed a happiness rating (in service centers) of 92.6% in 2018. This case study looks at the key challenges addressed by the Happiness Meter, its features, impact, and the road ahead.





## **Challenges**

The UAE is a federation of seven emirates, consisting of Abu Dhabi (which serves as the capital), Ajman, Dubai, Fujairah, Ras Al Khaimah, Sharjah, and Umm Al Quwain. The executive branch of the federation is represented by the Council of Ministers, which has 32 members<sup>2</sup>, including the Prime Minister. There are 39 Federal Ministries and Authorities in the UAE. The total number of federal government services is over 2,500.

According to the latest World Bank data, the United Arab Emirates population was an estimated 9.4 million in 2017, compared to 6 million in 2007. The population growth is significant, at 57% during that period; by contrast, Singapore's population grew by a comparatively slow 22% and Austria's by 6% during the same period. Much of the UAE's population growth is attributed to economic growth<sup>3</sup> and, as expected, has put significant pressure on government services.

The growing pains impacting government services excellence as a result can be grouped into three areas as highlighted below.

### Key Challenges Faced in Delivering Customer Services Excellence Prior to the Introduction of the Happiness Meter



Gathering consistent data



Receiving realtime feedback



Sustaining citizen needs

<sup>2. &</sup>quot;The UAE Cabinet," www.government.ae, Accessed August 5th, 2019.

<sup>3. &</sup>quot;Decade of remarkable growth in every direction imaginable", The National, James Langton, April 17, 2018



### Challenge

#1

# Lack of consistent evaluation metrics and tools for services across the federal entities

Historically, gathering and acting upon customer feedback from 39 UAE federal government entities and over 2,500 official government services has been challenging. There was a lack of effective tools to gather customer feedback from online and inperson touchpoints, and of consistent methodology or metrics criteria for effective evaluation. This resulted in inconsistent entity-by-entity feedback mechanisms and very limited centralized ability to evaluate and address happiness improvements.

### Challenge



### Feedback reporting was not real-time

Feedback processes for government services did exist before. However, these used offline surveys and mystery shopping methods. In many cases, feedback gathered was generic, open ended, and incomplete. This ultimately prevented timely insight into real-time customer happiness levels and hindered the ability to deliver timely service improvements.

### Challenge

### Inability to gauge and improve customer happiness



The biggest challenge to overcome for government services excellence lay in the inability to properly gauge customer happiness consistently and to affect strong improvements. The inability to gather real-time and consistent feedback led to siloed responses and provided very little insight into customer happiness levels.



## **Vision**

Addressing the stated challenges has been part of a larger vision of placing the UAE among the happiest countries in the world. On March 7th, 2016, H. H. Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of UAE and Ruler of Dubai, announced the National Programme for Happiness and Positivity, presented by Her Excellency Ohood bint Khalfan Al Roumi, the Minister of State for Happiness and Wellbeing.

The Programme sets government policies, programs, and services that promote the virtues of positive lifestyles in the community and creates a plan for the development of a happiness index. The UAE Federal Government Happiness Meter was introduced in 2016 as part of this program. The Happiness Meter initiative is led and managed by the Emirates Government Service Excellence Program (EGSEP) from the Prime Minister's Office in the UAE. It has been led by H.E. Mohamed Bintaliah, Assistant Director General for Government Services Sector at the Prime Minister's Office in the Ministry of Cabinet Affairs and the Future.



## The Solution

A nation-wide federal government "Happiness Meter" driving a real-time feedback and response system across multiple channels



The UAE Federal Government Happiness Meter initiative was launched in 2016 as a real-time feedback and sentiment measurement solution that enables every federal government service provider in the UAE to collect data and analyze customer interactions. It is an initiative introduced by Her Excellency Ohood bint Khalfan Al Roumi, Minister of State for Happiness and Wellbeing in the UAE.

The Happiness Meter is envisioned to further strengthen UAE government's customer-centric focus by empowering customers through multi-channel engagement and moving from prescriptive to predictive analytics for real-time responses.

In its early days, the Happiness Meter collected real-time sentiment data (from citizens, residents, visitors) on service delivery across multiple federal government entities. By April 2019, the number of federal government entities deploying the Happiness Meter at physical services centers (Customer service centers were renamed as 'Customer Happiness Centers' in the UAE to go with their 'Happiness' vision.) grew to 26 (out of 26 qualified entities) across 512 different centers. Meanwhile, the Happiness Meter is deployed online across 38 federal entities with 550 e-Services integrations.

Its integrated input technologies at Customer Happiness Centers include: iPads at every counter for feedback entry, queuing systems tracking, and headcount cameras for footfall traffic analysis.

### **Happiness Meter Objectives:**



Measure the level of happiness of customers of government services across all service channels.



Provide statistics on services and channels, as well as customer demographic data and visitors statistics



Use results produced through big data analytics to identify areas for improvement, to proactively support government services development efforts.



Empower decision makers with immediate and accurate data that contributes to improving the quality and efficiency of government services.



## **The Solution**

### **Happiness Meter - Key Facts**





## IN SERVICE CENTERS

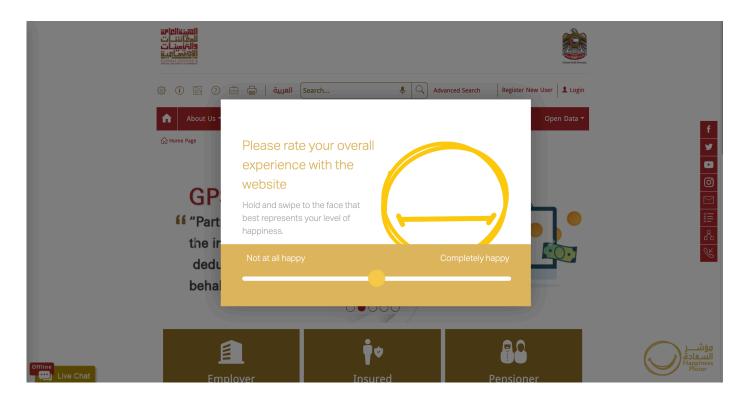
4,047 iPads deployed across 512 service centers nationally





## **Online**

Online widgets deployed for 550 E-Services, 39 websites, and 9 smart apps



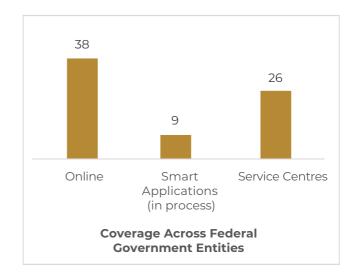
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### **Audience - Key Facts**

As of April 2019, the Happiness Meter is deployed online across 38 federal government entities:

- 9 entities through smart applications.
- 26 entities across 512 customer Happiness center locations. These locations received 1 million evaluations, 7 million visitors with an average wait time of 8 minutes and an average service time of 4 minutes.
- The 512 customer Happiness center locations have 4,047 counters. 277 centers are integrated with the queuing system and 71 centers are integrated with headcount cameras.
- The 38 entities that deployed the Happiness Meter on their e-Services received 4 million evaluations across 550 e-Services.
- Online, there are 39 websites and applications currently deploying the Happiness Meter.



### How does it work?

The Happiness Meter captures real-time customer sentiment on service delivery across government entities through customer Happiness centers and online channels. The main interface for feedback gathering is a sliding scale of Happiness rating by customers. There are two optional questions depending on their satisfaction level.

This interface is available through iPads placed at the Happiness Service Centers' desks or through online channels as shown on Page 8. Responses are collected and processed at the UAE Federal Government's secure data centers for further analysis and reporting.

**Channels:** Timeliness, completeness, precision, and accessibility of data makes for accurate analysis and actionable insights. Following are the key input channels:



**Service Center devices:** Happiness Meter devices are deployed across the customer Happiness centers. These are placed at each of the counters within the service center offices.



**Website and mobile application integration:** Survey widgets on websites, mobile applications, and smart service transactions allow more feedback to be collected on customer happiness from a wider audience. This approach led to a sharp increase (10%) in feedback from the digital surveys compared with center docked surveys.



**Headcount cameras integration:** Headcount cameras at customer service centers send daily and weekly footfall data to the Happiness Meter platform. This provides more insight on center traffic and customer behavior over day and week periods.



**Call center integration:** The Happiness Meter on the Go is a function that enables integration with numerous back-end systems to capture feedback from different channels. For example, customer feedback captured may be gathered through the Customer Happiness Surveys completed by customers following a call to call centers.



**Queue system integration:** Integration between entities' queue system devices (integrated with top 5 queue system providers in the market) provides a holistic view on visitor demographic, visitor volume per hour, total visitors per day, average visitors served, average waiting time, and average service time data.

### Other Integrations:

Integration with the UAE Federal Government services portal, Khadamati, connects the public service transactions retrieved from queue systems to the 2500+ services defined across the federal government. This integration permits mapping of customer journeys across both digital and physical public service delivery channels.

The NCRM (the National Customer Relations Management System) integration serves as another means to facilitate feedback response by redirecting feedback from the Happiness Meter into the NCRM system, so that federal entities can take immediate actions.

### **DASHBOARD**



Central real-time reporting dashboard showing country heatmap with drill down capabilities.



Users receive weekly autogenerated reports based on access levels



# **Impact**

# In just 2 years, the Happiness Meter has achieved 99% services reach nationwide with significant economic and happiness impact.

Overall, the Happiness Meter's economic and happiness impact since its deployment can be categorized into five areas:



Impact #1: User Engagement and Happiness Levels have Increased



Impact #2: Customer Unhappiness Being Addressed



Impact #3:
Nationwide Connectivity
Delivering Wholistic View
of Real-time Sentiment



Impact #4: Government Entities Actively Using the Happiness Meter



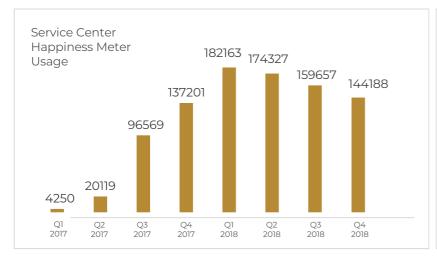
**Impact #5:**Economic Savings Being
Realized

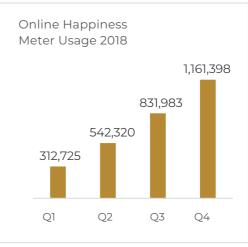
# Impact #1

User Engagement and Happiness Levels have increased between 2016 and 2019 across online platforms and service centers

As of April 2019, over 5.5 million user evaluations were recorded by the Happiness Meter across both service center and online platforms (with 4.5 million across online tools and 1 million across service center platforms).

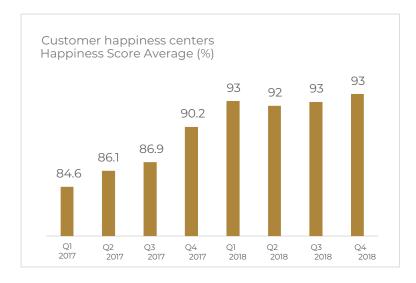
While the total overall level of service center usage fell, the number of online evaluations showed significantly increased, to 1.16 million in Q4 2018 alone. While the drop in service center usage is something for the Happiness Meter team to review, growth in online responses is a positive sign, as most government services move online through smart services.

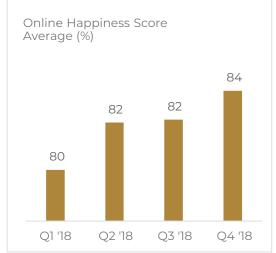




Source: Happiness Meter Reporting dashboard

In customer happiness centers, the average Happiness Meter scores from customers had grown from 86.6% in Q1 of 2017, to 92.6% in Q4 of 2018, which is a strong improvement and demonstrates a high level of customer service happiness. On the online platform, however, the scores were lower. The average happiness response from customers online grew from 80% in Q1 2018 to 84% in Q4 of 2018. This can be attributed to general customer behavior, a trend of being more generous in person versus when anonymous online.





Source: Happiness Meter Reporting dashboard

# Impact

### Customer Unhappiness is being addressed in some areas

Based on the 2018 data, "waiting time" was the most common reason for unhappiness and represented 35% of total responses from customers who gave a happiness meter rating of 40% or lower. Meanwhile for those respondents who gave a happiness meter rating between 40% and 90%, they were asked to suggest an area of improvement.

Highest responses to this scenario were "reduction in cost of service" (21%.)



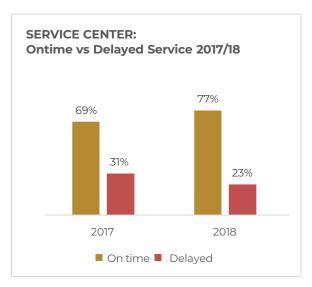


Asked to those who rated Happiness 40% or lower

Asked to those who rated Happiness 40-90%

There has been a positive response by government entities to calls to address some priority concerns. According to the data below, given the unhappiness around waiting time in 2018, the average wait time in service centers gathered from service center queuing systems decreased from 12 minutes in 2017, to 8 minutes in 2018, while service times remained at an average 4 minutes. The on-time service rates gathered from service center queuing systems also improved, from 69% of total customers in 2017 to 77% in 2018. (This data set represents select centers only.)





Source: Happiness Meter Reporting dashboard

# Impact #3

## Nationwide connectivity delivering wholistic view of real-time sentiment

One of the other impact areas addressed by the Happiness Meter is its nationwide connectivity and reach delivering a holistic picture of happiness with Government services throughout the UAE. The Happiness Meter has been deployed across all government-to-customer federal entities (26 out of 26), with online deployment across 38 government federal entities, and more than 30 embassies and consulates.

One of the major achievements of the Happiness Meter has been its connectivity across all seven Emirates, across all eligible government entities, and over all service delivery channels.

In addition, 69% of the qualifying federal entities also had headcount cameras and queuing systems deployed. This has enabled consistent representation of nationwide government services happiness sentiment.

Not only does the Happiness Meter cover the sentiment of happiness, it also covers the aspect of "unhappiness" by capturing feedback, suggestions and complaints from customers.

## Impact #4

### Strong Government Entity response and usage of Happiness Meter (from survey)

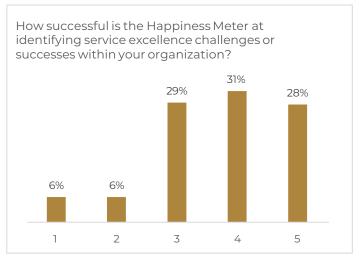
In April 2019, a survey was delivered to government entities who implemented the UAE Federal Government Happiness Meter Initiative to determine their perception and utilization rates of the Happiness Meter.

A total of 229 survey responses were received from across 22 UAE federal government service entities.

Based on the responses, the level of customer engagement with the Happiness Meter across government services is significant. Over 86% of respondents described the level of engagement with the Happiness Meter within their organization at a 3 or higher on a 5-point scale. In addition, over 88% of respondents described the Happiness Meter success with identifying service excellence challenges or success within their organization at a 3 or higher on a 5-point scale.

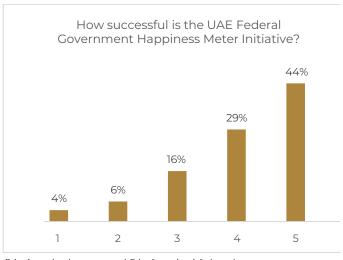


(1 being the lowest and 5 being the highest)



(1 being the lowest and 5 being the highest)

Over 69% of respondents state that a key benefit of the Happiness Meter is that it helps engage customers. Ninety percent of respondents described the UAE Happiness Meter Initiative as a success within their organization at a 3 or higher on a 5-point scale (1 being the lowest and 5 being the highest).



(1 being the lowest and 5 being the highest)



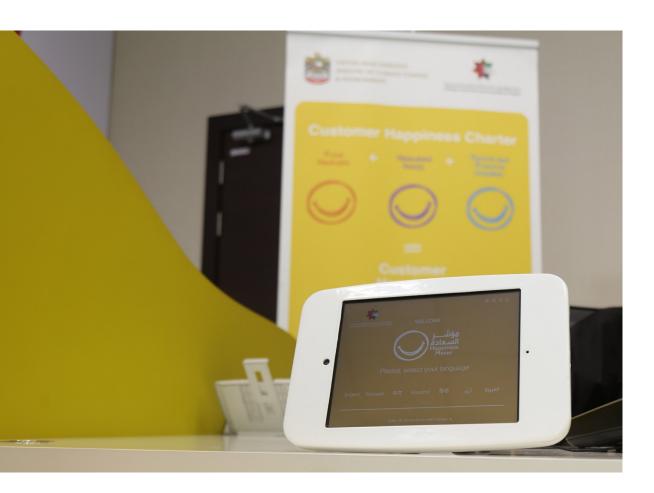
# Impact #5

### **Economic savings from the Happiness Meter being realized**

The Happiness Meters positive impact also equates economic benefits to the government, in the form of savings driven by improvements generated the by the Happiness Meter, or more revenue generated by improvements in customer happiness.

For improvement in happiness levels, according to a study published in 2005<sup>4</sup> by the American Customer Satisfaction Index (ACSI), a positive relationship exists between customer satisfaction and cash flow growth for any organization – including for public/government services. The study estimates that for every one-point increase in customer satisfaction, operating cash flows increased by \$1.01 the following year (for every \$1,000 in assets).

A high-level economic impact assessment has been derived by leveraging the ACSI study's findings. Given that the Happiness Meter results in an annual increase of four points in overall happiness levels, as shown in the growth from 88.6% in 2017 to 92.6% in 2018, we have estimated a UAE government cash flow increase of AED 200 million in one year. This calculation is based on the estimated total UAE Federal budget in 2018 of AED 51.4 billion, as reported by the UAE Ministry of Finance<sup>5</sup>. (Please note that this is a purely theoretical assessment based on the metric used meant only to provide a rough idea of the nature of the impact.)



<sup>&</sup>lt;sup>4</sup> Customer Satisfaction With the Federal Government https://www.theacsi.org/news-and-resources/customer-satisfaction-reports/report-archive/acsi-commentaries-1999-2009/acsi-federal-government-commentary-2005

 $<sup>^{5}</sup>$  UAE Federeal Budget 2018 https://www.mof.gov.ae/en/resourcesAndBudget/fedralBudget/Pages/budget2018.aspx



# **Impact Examples**

The Happiness Meter has led to the identification of multiple collaborative projects between various entities such as the general enhancement of selected services through a dedicated team at the Ministry of Justice and the enhancement of the appointment booking system in the Ministry of Health and Prevention. Below are some examples of actual service enhancements initiated as a result of the Happiness Meter customer feedback, drawn from the government entities survey:



وزارة الصحة و وقاية المجتمع MINISTRY OF HEALTH & PREVENTION Through access to the Happiness Meter, the Ministry of Health & Prevention identified problem areas weekly and were able to tackle specific challenges quickly.

One example of this is how they reduced the number of customer visits and waiting times at the main center at the Ministry, by decentralizing the process of CME accreditation and allowing customers to complete their paperwork processing at their closest Emirate center. Increased customer happiness was due to the availability of better-located centers, which helped them avoid visiting a single center with long waiting times.

Another example of the Happiness Meters impact was when the Ministry of Health & Prevention identified, through Happiness Meter reporting, that customers were not happy with their pharmaceutical training service process. Feedback analysis showed that a large number of documents were required for this process, which usually meant multiple visits to the center were necessary. The team updated the service to have less documentation requirements, which allowed online submission of documentation and reduced the need for multiple customer visits. When investigating the Happiness Meter data after launching this updated service, the Ministry saw increased customer happiness and significantly reduced customer visits to the center. Weekly meetings to review Happiness Meter data coming from auto-generated weekly report were useful tools for these improvements.



The MOE (Ministry of Education) has a service program for verifying the Educational Certificates of customers. This is done in coordination with the Ministry of Foreign Affairs and Ministry of Finance (to coordinate submissions from international embassies). Feedback from the Happiness Meter showed that the long process was a major point of unhappiness. As a result, an e-link service called My Certificate was launched to validate educational certificates. The number of steps were reduced from 13 to 6 in some cases, and the time was reduced from 5 days to 10 hours.





# The Road Ahead

### **Towards Al-supported predictive analytics**

The Happiness Meter demonstrates possible applications for real-time feedback and data analytics integrated nationally for a unified single-view to enhance customer service excellence. Meanwhile, feedback provided by customers has also identified areas for improvement. For example, feedback captured via devices deployed in centers where customers are in close proximity to government service agents, as opposed to the comfort of their own home where they tend to be more critical. As a result, feedback at centers is less critical and doesn't fully capture the customers' needs.

This is an important challenge to overcome to ensure customer needs are met. The Happiness Meter's roadmap through 2020 envisions it achieving minimal human intervention, further strengthening a unified interface for the government and covering all channels. The Happiness Meter is expected to enable government services to move from prescriptive analytics to predictive analytics by further leveraging the Big Data methods to the data being gathered and enhancing feedback and response time through artificial intelligence applications and Internet of Things integration.

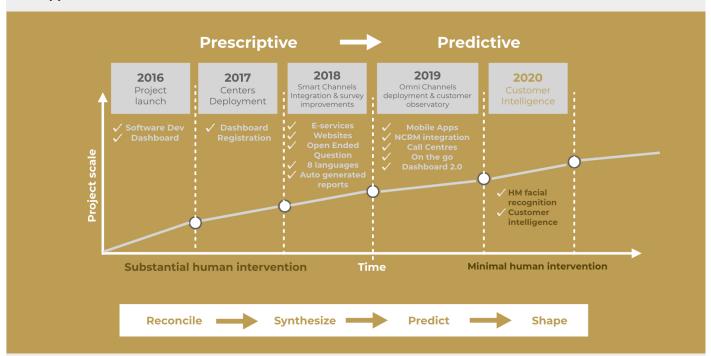
As part of the Happiness Meter roadmap to 2020, there are plans to integrate and deploy across various digital government channels. This is to collect customer profile data and enhance the impact of the Happiness Meter by creating a Customer Observatory, a Happiness Meter Facial Recognition platform, and a Customer Intelligence Training Program.

#### **Future Potential Economic Savings**

While economic benefits are already being realized (as highlighted in the Impact section), further economic benefits are anticipated.

In 2018, the average service time for visitors within service centers was 4.3 minutes<sup>6</sup>. For every potential one-minute decrease in average service time, an estimated AED 8.16 million can be saved by UAE Federal Government Services. In addition, automating or moving customer services over to e-Services would also make significant economic savings and overall customer happiness.

#### **Happiness Meter Growth Plans**



In conclusion, this case study on the UAE Federal Government Happiness Meter, demonstrates a successful application of a nation-wide government services satisfaction reporting system helping deliver government services innovations through real-time, multi-channel, data analytics.

6 Happiness Meter dashboard



# Methodology

A wide range of sources and methods were used in the production of this case study.

### Secondary research:

Secondary research sources used included but are not limited to 'Harnessing Citizen Sentiment to Improve Experience for Public Services'<sup>7</sup> by EY (2019), The Happiness Meter Initiative website, Sheikh Khalifa Government Excellence Program website.

#### **Primary research:**

In-depth interviews were conducted with the Emirates Government Services Excellence Program (EGSEP) team. A nationwide survey was employed across all UAE government entities where the Happiness Meter was also deployed. This case study includes several estimates that are not publicly reported but have been estimated based on a synthesis of multiple datasets. The actual economic impact of the Happiness Meter was calculated using the American Customer Satisfaction Index (ACSI) baseline estimates from the 2005 Report, which states that for every one-point increase in customer satisfaction, operating cash flows increased by \$1.00 the following year (for every \$1,000 in assets). Happiness Meter data in 2018 was also included in this estimate. The potential economic impact was calculated using a publicly available hourly rate estimate and Happiness Meter data in 2018, including total visitors and average service time.

The case study had contributions from various representatives from the Prime Minister's Office in the Ministry of Cabinet Affairs and the Future and number of representatives from various federal government entities across the UAE that are using the Happiness Meter.

### About the GX Case Studies

The GX Case Studies are being produced as a series of case studies highlighting and driving excellence across government services worldwide. It has been produced by the GX.ae team in partnership with various knowledge partners.

**About GX.ae:** A global online platform to share knowledge, enable interaction and activate ideas on government services. This portal, GX, aims to unite government decision-makers, global practitioners and renowned innovators to re-examine and re-define Government Experience for the present and the future.

**About All (Applied Innovation Institute):** Established in 2009, the Applied Innovation Institute is a Silicon Valley-based non-profit think tank dedicated to the creation and continuous development of innovation as it should be applied to real world issues.

Contact: For additional information on the GX Case Studies please contact at: info@gx.ae

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<sup>&</sup>lt;sup>7</sup> World Government Summit website https://www.worldgovernmentsummit.org/api/publications/document?id=3f82aec5-e97c-6578-b2f8-ff0000a7ddb6



read more at: www.gx.ae

## **UAE's Happiness Meter**

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### **Knowledge Partner:**

