

Enhancing the Quality of Smart Government Services in Dubai

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Abstract: Smart Dubai Government Establishment (also known as Smart Dubai Gov. or SDG) is the technology arm of Smart Dubai, a city-wide initiative to transform Dubai into the world's smartest and happiest city. The mission is to 'deliver world-class smart services and infrastructure to create happiness'. They are keen on moving forward on their journey to create sustained citizen, resident and visitor happiness. SDG is looking for enhancing the customer service by improving their quality. Quality always plays chief concern in Dubai government service. This paper aims is to create an application which supports Quality enhancement program for SDG. The primary concern about his application is reducing the waiting line queue size and saving time for waiting the customer to be served.

Keywords: SDG, quality enhancement, waiting time, reducing queue size

1.0 Introduction:

The time and money are chief concern in every service worldwide. Usually the time spent for any service is measured by the amount spent for the same and being weighed on this scale. People are ready to spend some extra money to reduce the waiting time for being served. Hence, the Primary concern about enhancing the smart government service in Dubai by reducing the waiting time and serving more customers.

Dubai government involves more than 20 departments incurred in serving the people and nation. Moreover, it has five entities services as citizens, residents, business, visitors and government entities. By connecting all under one roof the aim is to reduce the service time and making customer happy. The customer service extended to all nationalities including Emiratis, Arabs and Non- Arabic speaking nationalities too. These services vary from labor to Entrepreneur and a small shop to corporates. But the aim of this service is to ease the needy people especially in service sectors. For example, DEWA, Passport Services, Ministry of health, Banks, RTA and etc. Whereas people need to get serviced have to submit minimum documents. For example, in UAE, National ID card is mandatory for all nationalities and for all services. Similar for Expat peoples, Valid Visa page Copy/Proof is must for all services to be done. As well, depending on the service sector organization, the customer has to submit more at least 4 or 5 documents as per his/her needs. So Photo copying each time for each service as well submission and documentation of each copy is cumbersome and time consuming, also expensive for the customers. So e-documentation system being introduced to use it wherever people need to get serviced. For making the process and documentation easy, Dubai Smart government initiative supports e-documentation for the customers with unique login and they can submit e-documents/data where ever they need using their login wallet. Customers they scan the required documents and keep in his/her wallet login and the same can be submitted. So it eases the customers to collect same/ repeated documents.

Initially, when a customer's required his service first time, he has to create his login in the customer portal provided in Dubai Smart government website. There, he can choose the required department and required service, and the concern department/service will offer him the list of required documents. Once he registers his required services, he can upload his scanned documents and the same can be kept in his Wallet and the could be submitted to the requested services. Then they can fix their appointments with date and time conveniently based on the availability with nearby offices/branches too. Later he can present with original documents for verification during the time of appointment and his service will be taken in to account immediately. For this he has to pay a minimum amount of AED 10 as service fee for all kind of serviced in Dubai Government. The service fee is mandatory for all services and for all nationalities in Dubai government services. This has really reflected in

reducing the queue service in huge and waiting time. Indirectly, it has reduced the burden of people using Photocopying and spending money of Photocopying. Especially, this supported peoples in time saving and increasing their efficiency. Since customer fixes his appointment he can plan his duties accordingly. Moreover, since he knows the documents required in advance he can avoid returning without being served. This initiative is in initial position and Dubai government is extending this service to almost all departments as part of vision 2020 and supporting the happiness index. Believing that, customer service is prime concern over smart government services.

2.0 Literature Review:

The time and money are chief concern in every service worldwide. Usually the time spent for any service is measured by the amount spent for the same and being weighed on this scale. People are ready to spend some extra money to reduce the waiting time for being served. Hence, the primary concern about enhancing the smart government service in Dubai by reducing the waiting time and serving more customers.

This project is initiated in accordance with the vision of 2020 by Dubai government, to achieve excellence in e-governance as well as in customer satisfaction. To complete this vision Dubai's government initiated the mission of Ministry of happiness. The UAE is ranked as the 28th happiest country in the world, according to last year's UN World Happiness Report. Denmark, Switzerland and Iceland occupied the top three slots. The UAE was the happiest country in the region. "Happiness is a serious job for governments," said Ms Al Roumi. "The main job for the government is to create happiness. In 2011, the UN encouraged the member countries to look at happiness for a holistic approach for development." Her Excellency Ohoodbint Khalfan Al Roumi is the Minister of State for Happiness in the new UAE Cabinet, announced in February 2016. The new ministry aims to promote the UAE's plans, programs and policies to promote the happiness of the UAE society.

The prime idea of this application project to support as a part of Ministry of happiness through enhancing the service for the customers by reducing time and difficult Which reduces mostly the waiting time, queue size as well the frequency of visiting for the concerned services.

In this scenario, analyzing the e-government along with its performance and successes are key factor to monitor and to improve the efficiency of service. The e government perspectives, philosophies, theories, methods and practices are key indicators for success of e-governance (Richard Heeks, 2007). Further, Linking the citizens satisfaction with e-government and trust over the service are prime factors for enhancing the quality of service (Eric W Weleh, et al., 2005). At the same time the attitude of people towards the e-governance and trust about the service also plays vita role in success row of the quality enhancement service. (Ailsa Kolsaker). Finally, the all e-governance are having minimum service charge as of now in AED 10 for each e-service in Dubai has been implemented as transaction cost. Which enable hazardless e-governance serviceability and strategic alliances.(JoanneE.Oxley)

3.0 Material and Methods:

SDG is achieving towards 100% e governance in and almost it has reached 90% and above in all its entities. Almost all government bodies are entitled with serving customers to make them happy with their service. But some the lag is interconnectivity some departments makes customers to wait more on documentation. So whenever the customer is served he/she has to provide the relevant document for the services. The documentation is being the hectic procedure for many customers for their lack of knowledge and information and they wait lot in the queue and sometime they are fatigue with the missing documents/papers. So our aim to create and application which supports to bring all the government entities to bring under a single roof and the services offered. So the customers they can visit their required service page and learn the required documents. They can upload all required documents and e-documentation and they can fix their appointment also with the service station with date and time with available slot. Else they can walking and get the service done in minutes by reducing the waiting time due to e-documentation.

Further, Dubai government recently introduced the service fee of AED 10 for all its customer services. So even the payments customer can do in advance using e-dirham or credit/debit cards to save more time on customer service. This application will support fetching the required documents for the concerned service and will improve

the quality time and money.

3.1 Data Collection

Data Collection is a serious and a series activity among the customer as well as service provider. Since our study is concentrating the customer centric, we are organizing a feedback system continuously to monitor the service activity to serve better and better always. Of course this system is in still in implementations stage, collecting feedback from customer to improve the quality service being the prime concern over this study. In this concern, we have implemented system in almost eight entity government sectors to obtain customer feedback. Initially these facilitates are implemented in main campus of these eight departments and further to be extended for other branch offices too.

These systems are monitored and controlled by Dubai Statistics Center (DSC) as on initial stage. This is also a part of Dubai Government e-governance. All these eight department systems are connected with DSC and day to day basis data collection, consolidation and updating the statistical calculations being studied. Since our project is time bounded and has many limitations, the methodology to obtain the data being organized with the help of DSC. DSC poses 15 questions to get the real-time feedback to upgrade the service and system further. But for our project, we have restricted the questionnaires to ten. This questionnaire put for the customers with the appeal has been provided in the appendices.

3.2 Data collection Methods

To make the study meaningful, it is understood that the sample size play a vital role. Accordingly, simple random sampling, a widely popular method being adopted to data collection. Initially, it is planned to collect at least 30 samples from each department, to ensure the sample is lager by at least. Hence totally 240 inputs were taken for our study.

Initially, each department's first 200 complete entries were picked out the used three digit random numbers to choose 30 competed data from each department. Due to all competed data is under the study there was no need for any substitution technique and al the 240 data sets were collected by using simple random sampling method. The departments included in our study plan are:

1. Dubai Electricity and Water Authority (DEWA)
2. Road and Transport services – Travel wing (RTA travel Wing)
3. Ministry of Education (MEA)
4. Dubai Statistics Centre (DSC)
5. Dubai Municipality (DM)
6. Awqaf and Minor Affairs Foundation
7. Dubai Courts
8. Dubai International Academic city (DIAC)

Further this service will be extended to all other departments sooner. To obtain the data with mixed responses from all nationalities, the data collection form diversified environment being taken for consideration. Data results and interpretation are provided in next assignment. The participants who have completed/enjoyed his/her service only being requested to participate in this survey. The participants were providing with system and complete facility without any compulsion. All nationality peoples were included in this survey. Survey questions were put in bilingual to make this survey easier and clearer. Further, assistance were also provided to some of the needy

people.

3.3 Data Analysis and Finding

The main tool used to collect data about the customer feedback to analyze the success percentage of the new campaign initiated by Dubai government. As mentioned earlier, systems were installed and proper assistance were arranged to get the service done time. The ideology behind this study is to enhance the service throughout the Dubai's Smart government project to ease the customer service and in terms of minimizing waiting time and queue length. This supports widely fixing their convenient appointment date and time as well the service. So that the customers were known to their services and required documents in advance so that they can upload all e-documents.

So following tables and charts will reveal the number of customers from each sector/department, their response and gender and nationality wise their kind of responses. Moreover the critical analysis of the data was made to identify their reliability and defense of opinion as fix with the hypotheses.

Hypotheses:

Null : H₀ It is believed to be that the customers are happy with the smart service e-documentation which really reduced their waiting time and queue size.

Alternate: H₁ It actually does not make any improvement in waiting time and queue size.

Department	DEWA	RTA	MEA	DSC	DM	AMAF	DC	DIAC	Total
Nos.	30	30	30	30	30	30	30	30	240

Nationality	Emirati	GCC/MENA	Western	Asian
Nos.	28	44	32	136

Table 3.1. Department wise/ Nationality wise number of Participants

For convenient purpose the nationality of the participants are grouped into four as provide in the above table to ease the serviceability. It's obvious and understood that, number of contributors for this every is more from Asian people and it's obvious that the people required services more according to the UAE's population size also supports that this data is consistent and reliable as per the correlation of the target population group. It confirms that more people in need of customer service in these sectors are people from Asian country's expatriates. The second leading population reveals that GCC/MENA and other neighboring Arab nationals in high numbers.

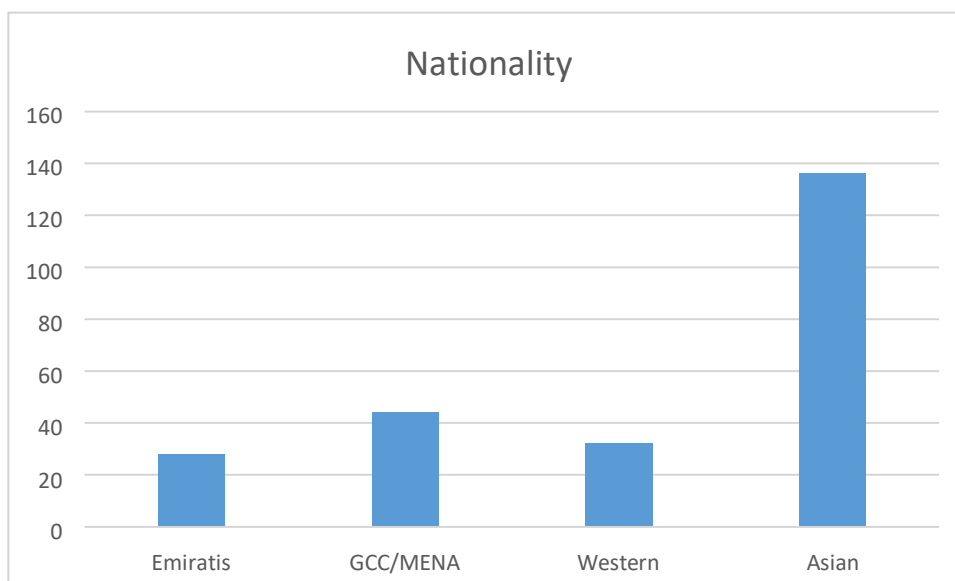


Figure 3.1 Nationality of Participants

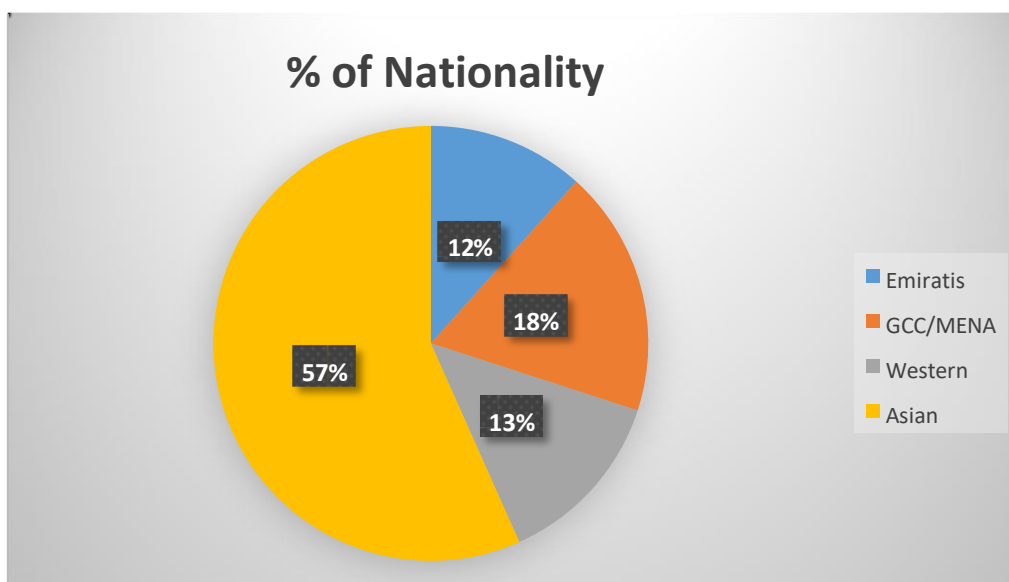


Figure 3.2 Percentage of Population of contributors based on nationality

Class	Response					Total
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Emiratis	16	8	3	1	0	28
GCC/MENA	21	15	6	1	1	44
Western	20	11	1	0	0	32

Asian	70	50	12	2	2	136
TOTAL	127	84	22	4	3	240

Table 3.2 Consolidated responses from Customers categorically

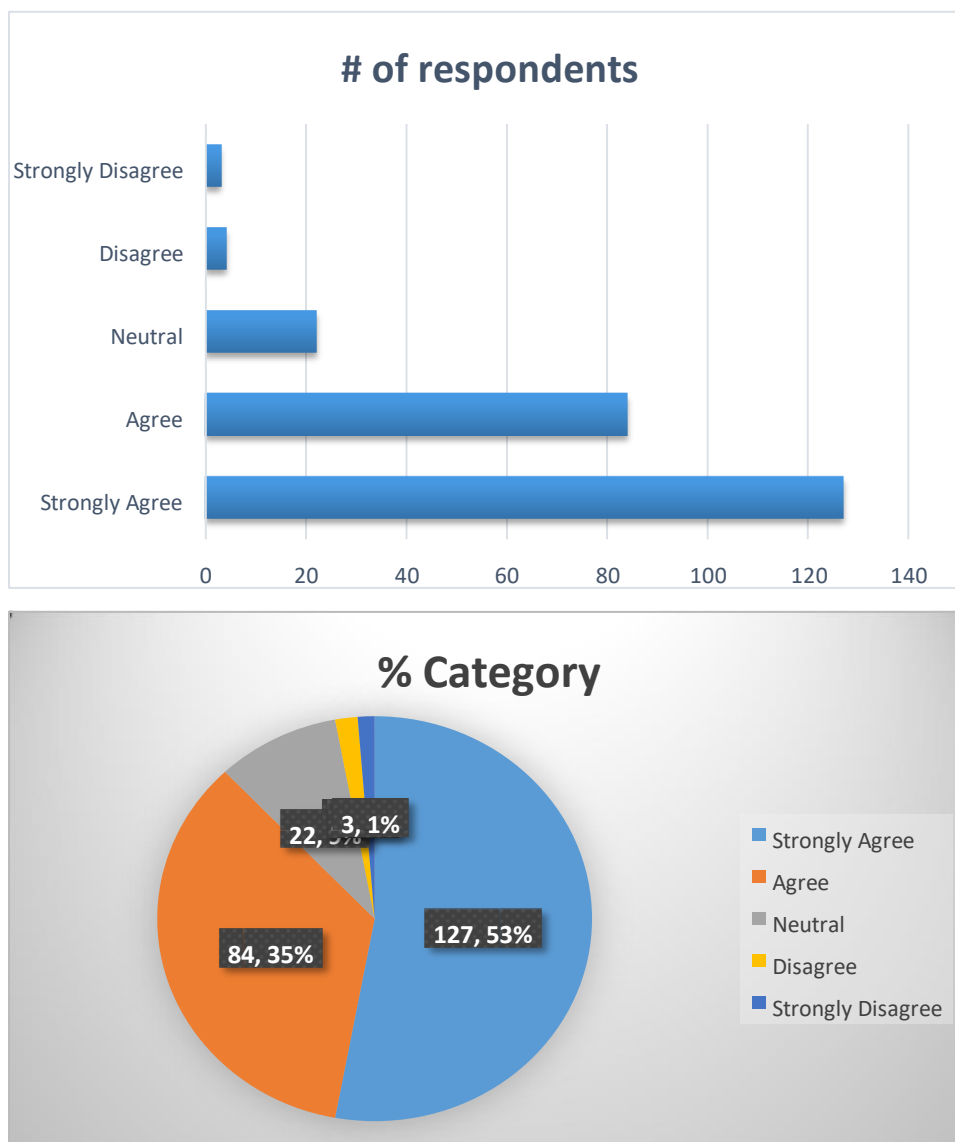


Figure 3.3 Responses categorically from the customers.

It clearly depicts that the responses are positively skewed and is very high. This supports the hypothesis that satisfaction level is high and which really reduces the waiting time and queue size. The number of satisfied customers in each category with parentage wise provided in above figures. To ensure the differentiability and to check the hypothesis we perform one way ANOVA test with respected P value. at 5% level of significance. The results are provided in the following table.

ANOVA
table

Source	SS	df	MS	F	p-value
Treatment	1,568.00	3	522.667	1.79	0.1888
Error	4,660.00	16	291.250		
Total	6,228.00	19			

Table 3.3 ANOVA output result

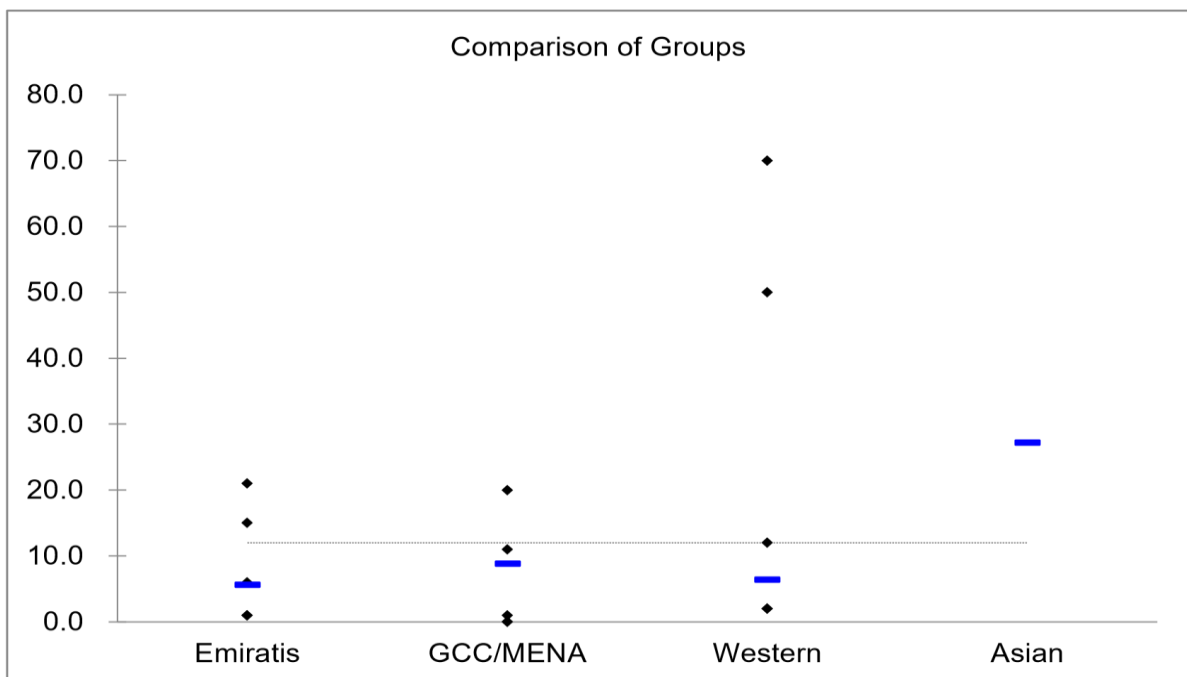
b) Tables (excel output)

One factor ANOVA

Mean	n	Std. Dev	
5.6	5	6.58	Emiratis
8.8	5	8.90	GCC/MENA
6.4	5	8.91	Western
27.2	5	31.04	Asian
12.0	20	18.10	Total

ANOVA table

Source	SS	df	MS	F	p-value
Treatment	1,568.00	3	522.667	1.79	.1888
Error	4,660.00	16	291.250		
Total	6,228.00	19			



It is evident that the $F = 1.79$ (with P value is 0.1888) support that the significance level of accepting the hypothesis is very high. Thereby we decide that the e-documentation system is supporting to reduce wait time and queue size in customer service centers.

Indirectly this increases the productivity of the service and efficiently of the service and supports in green community of avowing more paper usage. Which is considered biggest advantage the in the role of green environment and supports waste management and reduces storage and documentation and other subordinate area. Further, Using SPSS, the Cronbach alpha is measure to identify the consistency of the data and to measure the reliability of data. Which resulted that $\alpha = 0.829$ which supported the truth that the data is reliable and it is an additional support that the hypothesis is highly significant.

4.0 Limitations:

Our study has limitation with service entities and service bodies. But the initiate will bring more attractions towards SDG.

- The number of Departments/entities of Dubai government has not all been included due to the time and length.
- The data collection done with the customers who has completed his service using this e-documentation portal.
- The data collection was made in service centers at present only at Main braches of each service sector and customers were asked to provide feedback. For that, they were provided a system with internet connection and questionnaires were provided in bilingual and as of now.
- The data collection and compilation and further analysis is offered by Dubai Statistics Centre.
- Moreover due to official limitation the complete survey and resulted were not able to provide.

5.0 Conclusion:

Queue is a big issue everywhere people face day to day when they are waiting for the service. Here we have plat formed an ease customer friendly and economical way of service portfolio to enhance the quality improved customer service to meet the customer satisfaction and happiness among the customers. In this study we understood that, e-documentation the part of Dubai-Smart government service is resulting high in supporting the enhanced serviceability. UAE stands first in GCC in Efficiency of Internet usage and proved to be *Numero-uno* in service efficiency in Smart government initiatives. The serviceability has increased significantly and efficiency of Internet usage and awareness is highly positive.

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Appendix

a) Questionnaires:

Q-1) What's your level of satisfaction towards the smart services Dubai government is offering?

- Poor
- Fair
- Good
- Very good
- Excellent

Q-2) Would you pay extra service fees for receiving a smart service ?

- Poor
- Fair
- Good
- Very good
- Excellent

Q-3) Do you think that smart-services have reduced your waiting time in queue?

- Poor
- Fair
- Good
- Very good
- Excellent

Q-4) Did you face any difficulties with the smart services uploading system, in uploading documentations ?

- Poor
- Fair
- Good
- Very good
- Excellent

Q-5) Have you realized that this smart-documentation helps saving your money in photocopying repeatedly and not having any hard copies or less in hand ?

- Poor
- Fair
- Good
- Very good
- Excellent

Q-6) Do you think, smart-services system can be more enhanced in government entities? If yes please explain briefly.

- Yes
- No

- If No (Please Specify)

Q-7) How do you evaluate your experience in the smart-service applications?

- Poor
- Fair
- Good
- Very good
- Excellent

Q-8) Do you agree that your login wallet is easy to accept the documents and do you feel comfortable to retrieve documents whenever necessary?

- Poor
- Fair
- Good
- Very good
- Excellent

Q-9) How do you evaluate your overall experience with the smart-documentation service?

- Poor
- Fair
- Good
- Very good
- Excellent

Q-10) what's your happiness/satisfaction level towards the smart services offered in Dubai government?

- Poor
- Fair
- Good
- Very good
- Excellent