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The importance of Trust in Digital Transformation and SMART Government Initiatives

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A B S T R A C T

The existence of trust in the work environment is significant to organizational performance and competitiveness in an increasingly universal market (Combs et al., 2015). Several studies (Olivier, 2017) (Stephanie et al., 2014) has showed that promoting trusting relationships by an organization is an essential criterion of competitive advantage. Organizations that enhance of trust internally and externally earn advantages such as, attract loyal customers, high performance by employee and good position in market (Roderick and Roy, 2010). Furthermore, trust has several benefits on firms' outcomes such as increase sales, high profits, minimize worker turnover and employees achieve high level of cooperation among others. Lack of trust in government threatens the desire of people and business obey to government policies and participate to a potential economic recovery (Tao and Yunfan, 2010). The validity of organizations is construct based on the presence of trust and is significant for preserving social cohesion. A study was conducted by (Nils and Darja, 2008) showed that the impact of lacking trust in an organization resulted in several disadvantages such as, reduction in performance, work quality, sharing information, spirits of workers and increase in group combats. In addition, the employees prefer individual interest over group interest and expect negative comments from the manager. This result in, high supervision from mangers on employees that decreased the level of trust. Therefore, the presence of trust is essential to governments, organizations both public and private in providing services.

1. INTRODUCTION

Trust is defined as a group's readiness to be vulnerable to the acts of another group in the anticipation that the other will do a certain activity that is vital to the trustor, regardless of the ability to monitor or control that other group [1][2]. Challenges appears when achieving trust of people to use any online service, where people are required to share sensitive information [3].

Previous researches has showed that multiple governments worldwide have established smart government services, offering their services through smart applications to achieve customer happiness and provide rapid services [4]-[6]. Smart-government applications has an opportunity for innovation in the present of services in the public sector due to the precise access of information through location-based services. Smart government applications could promote the submission and effectiveness of government services and information, due to simple access and availability for customers [7][8][9][10]. Furthermore, smart government allow more choices for customers where the can apply their demands. Smart applications allow governments to display services and other features to customers by the use of internet through mobile phones or from home [11].

The purpose of this paper is to highlight the importance of trust in smart government. Moreover, during the digital transformation a lot of

people tend or required to use digital and smart service to apply for services, payment and more [12]-[16]. Therefore, this study is designed to determine the relation between trust in digital transformation and the development and efficiency in smart government. The focus will be on how trust impact the organization strategies, operations and innovation [17]-[19]. Also, the study will show how the entities are managing trust in digital transformations, and the reasons of having trust in their entities, in addition to the improvement required about trust. The research will cover the variables and characteristics of trust, furthermore, the factors that affect and effect trust in digital transformation [20]. A case study will be discussed based on the interviews conducted, in comparison with the literature review. Recommendations will be shared to improve the trust in digital transformation.

2. LITERATURE REVIEW

The management of data by governments has changed extensively in the recent past. Hence, Smart applications in data management have become a requisite. Therefore, the UAE government offers a pragmatic case of how states can utilize web analytics to enhance information and improve service delivery [21]-[28].

State and municipal governments across the world are increasingly adopting Smart applications to offer services and manage data. Notably, administrations need to rethink electronic data management approaches while aiming at sustainable development to increase efficiency [29]-[32]. Specifically, in the wake of rapid developments in technology, there is a need to establish a standard method to measure the level of trustworthiness, particularly in government entities [33]. For instance, social media networks provide a reliable avenue to estimate trust and integrity in government bodies [34]-[40]. Therefore, this literature review underlines web and content analytics used to measure trust while demonstrating how the United Arab Emirates government has transformed service delivery using digital technologies [41].

Organizational trust can be measured under three main variables, namely, integrity, competence, and dependability. The UAE government has initiated strategies to synchronize data to enhance efficiency [1][42][43][44]. Katie states that competence determines effectiveness and survival in the market [4][45][46], while integrity entails the level of fairness. Reliability is measured by an organization's consistency in pursuing its mission [47]-[50]. Thus, content analysis and web analytics comprise pragmatic methods of evaluating trust that depends on posts and the number of followers on social media, thereby reflecting customers' inclination to a particular brand [51]-[55]. Besides, using monetary rewards, social connectedness, and a subject's attitudes to measure reliance. The authors conclude that social capital and individual characteristics play a significant role in determining levels of trust [5][56][57][58], Therefore, experimental means or pre-defined dimensions can be used to assess and evaluate organizational reliance.

Using innovative technologies to manage government affairs can potentially improve trust from the general public. In the work of the E-government concept refers to service delivery to citizens using digital tools connected via the internet [6][59][60][61][62]. However, the model differs slightly from smart government, a citizen-centered service delivery system that incorporates inputs from public members to transform administrative functions through technology. Similarly, [63]-[66] state that E-government platforms promote high-quality service delivery, resource management, and coordination among various federal entities [5][67][68]. In addition, [6] claims that smart and E- governments foster innovation using social networks and big data . Shifting to digital platforms improves public participation and increases accountability in government parastatals [69][70].

Innovative technologies can be configured to meet customers' needs. According to Hajar, digital tools increase transparency and accessibility, fostering transparency in public services [6][71][72][73]. The internet is a strategic tool in achieving smart administration goals in which privacy and security are significant objectives when sharing information over digital platforms [74]-[80]. Moreover, trust, public confidence, and accessibility should be prioritized when installing smart technologies [6][81][82]. Lastly, IT systems in government should be geared towards citizen eccentricity in essential service delivery [83]. E-government platforms are multidimensional systems designed to achieve specific objectives

regarding improved service delivery to citizens [84].

United Arab Emirates is the epitome of using IT applications to optimize government functions. A 2012 survey placed UAE 28th in the world, 5th in Asia, and 1st among Gulf Cooperation Countries in E-government performance [4]. The national identity management system comprises one of the major applications of intelligent technologies in the country [85]-[89]. The platform allows users to create a profile with personal information, which is then stored on a universal identity card. For example, in Abu Dhabi, the government has developed initiatives aimed at customized service provision, convenience, and efficiency [6][90][91][92]. The system's architecture operates in a secure non-internet zone, which keeps off possible cyber-attacks [93][94]. Moreover, additional security features include data integrity, authentication, non-repudiation, and confidentiality [7][95][96]. Hence, United Arab Emirates boasts of a robust data management architecture secured using the latest technologies in information technology.

UAE relies on a national plan to achieve smart government targets. The main priority areas include human capital, data analytics, and service modernization [97]-[100]. UAE's national plan is designed around specific dimensions that align with international indices and best practices. Organizational capability encompasses the primary design element involving resources, infrastructure, policies, and outreach [101]-[104]. Service delivery is the second dimension, which deals with customer focus and legal, social, and regulatory environments (Telecommunications Regulatory Authority,2015)[5]. Under strategic impact, the national government aims to achieve operational excellence, higher quality of life, human capital development, and economic security (Telecommunications Regulatory Authority,2015)[5]. Innovative government systems in UAE are built on cloud-based resourcing and predictive analytics (Telecommunications Regulatory Authority,2015)[5][105]-[108]. Remarkably, the current plan was developed through research and analysis, individual workshop discussions using data provided by stakeholders. Therefore, UAE's national plan incorporates distinctive principles and models to achieve efficiency [109][110].

The government in UAE continues to spearhead smart technologies in various parastatals. For instance, Smart Pass is a unique credential that gives access to the government's online portal [111]-[115]. The system assigns each user a username and password using their Emirates ID [6][116]. The smart hub comprises a notable platform that brings together private and public sectors through the digital transformation of essential government services [6][117][118]. Moreover, the public sector employs intelligent technologies to plan, design, and maintain road networks, sewage systems, and street lighting [119]-[123]. Therefore, UAE demonstrates the potential of technology to bring government services closer to the public.

The innovations in information technology have affected the current applications of intelligent technologies in governments [124]-[129]. While conventional procedures may negatively influence trustworthiness levels, using technology guarantees security and integrity through enhanced protective features [130]-[133]. However, UAE entails a perfect example of how governments can embrace recent innovations to optimize service delivery.

3. RESEARCH FRAMEWORK

Based on the above-mentioned information, the framework of this paper will be as shown in the below figure.

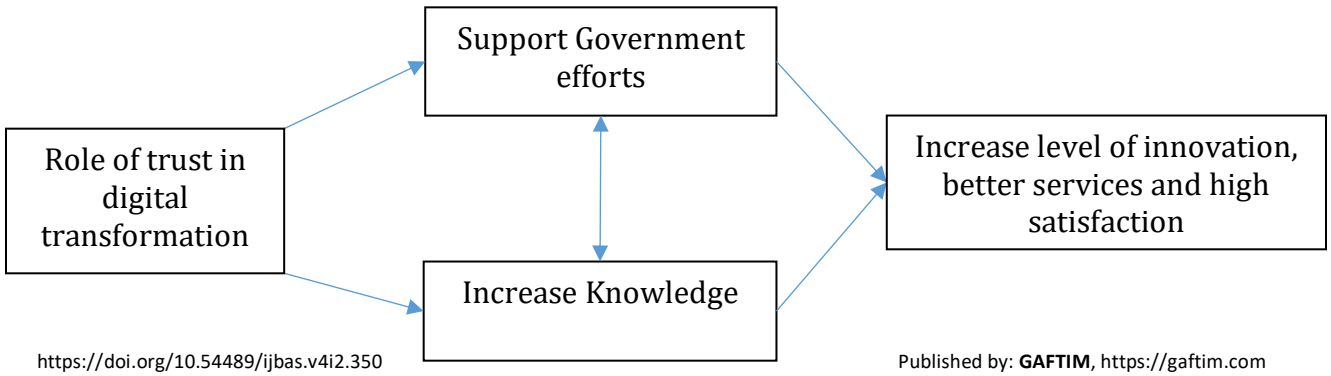

Figure 1

The proposition will be per the following:

- Proposition 1: the role of trust in digital transformation will enhance the relation between the innovation of digital government and the individuals
- Proposition 2: role of trust will support the government efforts positively and will increase the efficacy of a lot of digital initiatives and services.
- Proposition 3: increase knowledge and awareness about the digital transformation will create a trust relation with the individuals and the government entities.
- Proposition 4: once the awareness increases it will support the government efforts and will support the innovation and digital transformation which will be resulting in introducing better services and will increase the satisfaction of individuals.

4. RESEARCH METHODS

The research adopted both quantitative and qualitative methods. Also, a review on different articles and publications have been made, beside a questionnaire/ survey and interviews.

On quantitative data collection approach, several interviews were conducted with different entities which are Smart Dubai, ENOC, TDRA and Abu Dhabi Digital Authority. The interviews included twelve questions covering important elements in trust and digital transformation such as the overview of trust in digital transformation, legitimacy, effectiveness, and transparency.

In addition to the interviews, a primary data resources were analyzed such as the information obtained from some articles and papers and official publications through searching from official reports, library, articles, and internet.

On qualitative data collection approach, a survey was to analyze the participants understanding and knowledge of trust in digital transformation.

Moreover, the survey was created in English via online website, and the link was sent to random individuals, approximately 70. The number of the participants in the survey was 50. There were no requirements to participate in the survey, as it was open to both gender, different educational backgrounds and occupations

The survey allowed to analyze the demographic data of the participants and the level of the understanding of the digital transformation and the level of satisfaction. For such type of the studies, it will require high number of participants to compare the findings, however due to the short period of the course and the current COVID- 19 pandemic there was a limitation in approaching more participants and encourage them to fill the survey although the survey was electronic.

5. DISCUSSION

Technology is an integral element of life today. It guides governance, enhances processes, and promotes efficiency within organizations. However, there are some risks associated with the concept, especially regarding trust in digital transformation. Many cases of fraud and misuse of technology rights have occurred in this century [8], thereby negatively influencing the use of technology. Client trust has equally deteriorated due to existing loopholes in digital services and technology [134]-[138]. As such, organizations must restructure their processes to accommodate and resolve emerging trust issues within their operations. An interview with four United Arab Emirates (UAE) based entities reveals such patterns. In every analysis, it is evident that each organization has its way of approaching a challenge, although the operations are guided by policies and ethics, similar or otherwise [139]-[142].

5.1. Enhancing Trust on Privacy Issues

Various organizations strive to ensure that clients have trust in their operations. As observed, they rely on a 'Privacy Policy that protects users from possible violation of confidential data and information [8][143][144][145]. In this case, ENOC and the Abu Dhabi Digital Authority have related Privacy Policy for data protection. Nonetheless, there are other specific measures undertaken by a responsible organization to strengthen privacy and enhance trust. For instance, the Dubai SMART government encrypts all consumer data and utilizes a two-factor authentication model to reduce fraud and impersonation [146]. In essence, every clientele data must be protected from

exposure without consent, and when associating with the internet, further policies exist to eliminate any series of privacy issues.

5.2. Code of Ethics in Technology Use

Every organization should satisfy a Code of Conduct in the use of technology. Each entity has a unique approach to the element based on its operations and scope [147]-[151]. For instance, there are those regulated by internal codes like ENOC and the Abu Dhabi Digital Authority while others are regulated by government policies like the Dubai SMART Government. Others have an 'Acceptable use Policy' that creates a great user experience and enhances trust in using technology, and this is the case of TDRA.

5.3. Letter of the Law vs. Ethics-Based Principles

Organizations seemingly agree that they should be regulated by either the law or ethical principles in technology use. Some are even regulated by both in order to enhance efficiency [152]-[155]. For instance, ENOC is regulated by internal ethics-based principles while Dubai SMART Government and TDRA are regulated by both. It is imperative to understand that laws and policies set clear expectations and necessary foundations that should be adhered to in case of any liabilities or breach of clause [8][156]. The dissemination of ethics-based principles is also encouraged especially for new trends that are not captured in any law or policy. This is in the case of new technological trends like autonomous cars, online gaming, and remote working [157]-[160].

5.4. Adapting to Digital and Technological Changes

Every organization understands that customers are a critical component of its operations. They dictate virtually all processes and decisions and ensure that they comply with their needs. ENOC and Dubai SMART Government sample customer feedback, TDRA assesses internal and external changes as the Abu Dhabi Digital Authority emulates multiple policies and technologies for clients [161]. Therefore, these organizations determine the need to adapt and cope with technological changes by relying on feedback from clients. This occurs through social media, surveys, and interviews. Other avenues that enhance such digital trust include awareness sessions and reviewing policies as required [161].

5.5. Trust-related Challenges and Solution

Every organization has its set of challenges based on technology use. The magnitude may vary, but common ones are found within policies, procedures, or political uncertainties. For instance, the Covid-19 pandemic created significant challenges for most users and providers of technology products [162]. All companies have seemingly been affected by these complexities. Such included applications for remote working and medication. Even so, organizations have avenues through which to solve such trust-related issues. One way as suggested by ENOC is the enterprise risk management policy that reassures the credibility of services. The existence of monitoring centers also creates a low risk and protects clients' trust [163].

5.6. Aligning with Stakeholders' Interests

The primary duty of any organization is to identify its stakeholders. These are individuals who directly affect or are affected by the organization's processes. Therefore, it is crucial to listen and communicate with stakeholders often as postulated by TDRA and ENOC [164]. Approaches like customer partnerships and relations to conduct sessions with stakeholders are vital, and this approach is productive for the Dubai SMART Government. It enables the organization to understand their needs, interests, and areas of improvement [9][165]. The entities should also integrate stakeholder opinions into new projects and organizational change.

5.7. How Stakeholders are Affected and Involved

The interview analysis indicates that each policy and decision affect particular stakeholders. This could either add restrictions to their needs or relax their freedom and requirements [166]. Stakeholders become agents of change in society and are active in shaping organizational policy or direction, and all the organizations agree on this. Stakeholders should also participate in organizational processes by filling in surveys, attending discussions and gatherings, expressing their sentiments on crucial elements of change, and documenting feedback [167]. Finally, stakeholders will raise concerns on any elements affecting them to the proper channels and on time, thereby enhancing trust.

5.8. Achieving Real-time Accountability

Real-time accountability involves efforts that can communicate the roles and responsibilities of all providers in the digital spectra. This ideology also involves a culture of coordination that can address accountability at all times. In most organizations, various social media platforms like Facebook and Twitter have become tools of real-time accountability that build digital trust [168][169]. All four entities understand the importance of real-time accountability. The sophistication has moved towards integrating instant customer care services like Chatbots and WhatsApp messenger to offer timely feedback to clients. Big Data and Artificial Intelligence have also proved handy.

5.9 The Needed Level of Transparency

Most digital technologies are operating at a level that clients fail to understand and see. As such, this calls for a very high level of transparency that can foster trust. The transparency will involve quality control checks, shedding light on risks and issues before they happen, and building a culture of shared goals [170]. All entities understand that transparency is crucial for their operations. When it comes to transactions and the use of technology, it is crucial to store information on secure servers and monitor this security closely to identify any potential breach.

5.10. Monitoring and Reporting on Digital Trust

Organizations must initiate a process that develops and update strategies that address digital trust. These strategies should capture an entire spectrum of key actors, whether the government, non-profit organizations, private entities, and consumers. The entities should also process data that reflects on the potential risks in technology, policies, and people as practiced by ENOC and TDRA. Dubai SMART government upholds legitimacy, effectiveness, and transparency. The organizations should also utilize websites and social media sites to obtain credible feedback from clients and rely on online reviews to evaluate related products [171]. In essence, reporting on digital trust is crucial in customer relations.

5.11. Auditing and how to be done

Auditing is a measure that supports transparency always. It demonstrates confidence in the internal controls of an organization and assures compliance. On numerous occasions, companies should provide a detailed description of their procedures to allow auditors to assess their submission and report on the general outlook. As agreed by all organizations, the auditing can occur through governmental agencies, third-party consultants, or security office monitoring enterprises. Hence, it automates KPI's and creates business intelligent platforms.

5.12. Requirements to Ensure Digital Trust

Every organization has its unique procedures that ensure digital trust. This dictates how to address technological practices in an organization for the benefit of a user. In essence, the process involves cybersecurity as suggested by ENOC, installing credible systems by Abu Dhabi Digital Authority, defining policies and procedures, ensuring compliance by Dubai SMART Government, and selecting the best innovative technologies in the digital market. Regulatory authorities must also be enacted to ensure that each organization complies with the law or a code of conduct in providing technological services to users. Hence, these elements are paramount to guarantee digital trust.

5.14. Survey data analysis

The participants of the survey are 68% females and 32% males. The age group of most participant is 26-35 with percentage of 64, while 24% was for the age group 36-45 and the lowest was 12% for age group 18-25.

Looking to the survey questions, all 50 participants agreed on the it's important to create the trust relationship between individual and organization which will impact a lot of things such as the strategies, reports or services provides.

Moreover, 32 of the participants which count of 64% do not read the terms and conditions of the data privacy or any privacy notes, while 18 participants which count 36% do read the terms and conditions and all related information to data privacy.

38 of the participants who represent 76% take few minutes to complete the feedback forms or they share suggestions, while 12 participants who represent 24% of the participants do not share the feedback or suggestions of the smart and digital services.

The survey shows that most of the individual's high

level of awareness of the importance of trust in digital transformation. Also, the participants show high focus on the importance of protecting their data through digital transformation, and finally their welling to participate in the development.

5. CONCLUSION

To sum up, the trust in digital transformation is necessary. Even if the digital technologies are improving day by day, without the trust between the organizations and the end users it would be difficult to implement the latest technologies and move towards the digital transformation. Moreover, the trust will allow organizations to perform better by introducing smart and digital services, saving time and facilitate the process for both employees and clients. Therefore, the digital trust considered as core in information technology management.

It's important to know how to measure the trust in digital transformation and build strategies and plans within the government and organizations to enhance the trust and transparency beside protecting the data of the users. Regulation and policies will establish a guideline and will unify standers and requirements which will impact the trust relationship with the end users. Also, the importance of creating audit process to ensure the quality.

The awareness and understanding the digital trust within the organizations are important, as it allows to control the internal process to deal with data, privacy, and protection. Also, Code of ethics and Conducts Code are necessary beside the internal policies as they clarify the do and don't and the rights for both employees and the users. However, transparency is important to assure that data is protected, and the usage of the data is for their benefits not the organizations only.

Some of the processes and policies are already in place, however, it will require continue development to enhance the experience and the reliably. Therefore, looking for best practices and work to fill the gaps and encourage clients to share their feedback will eliminate a lot of concerns and will improve the trust.

The organizations must keep looking for improvement and developing and this cannot be achieved without trust of the end users as they will support the process and all the services are targeting the end users. It's important to focus on experience of the users, the environment available for trust and the behavior of both employees and users.

- **Recommendations:**

Based on the above-mentioned points and other research, below are some recommendations to be considered by all entities that regulate or deal with digital transformation:

- Entities to consider creating internal and external process for privacy. Internally the organization should know how to deal with the data, what to be saved, how to be saved and how the data will be protected. Externally, how to inform the clients or users about the privacy, for example if the data will be stored for how long, what are the uses and how it will be protected, Pop-up messages and other windows or a notice and disclaimer should be available.
- All information about privacy should be easy answered, client can have quick access to know all related information. Q&A can be considered and appointing a special contact for data privacy information.
- Conduct code or code of ethics are essential in every organization. This will act as ground rule and guidance for the employees to follow and to ensure that all employees are aware how behavior and acts will support the mission and strategy of the organization. Organizations should write the conduct code and code of ethics clearly and to have internal workshops or training for the staff to increase the awareness. Also, organizations might consider internal communication plan to keep reminding the staff and to eliminate any uncertainty.
- Brainstorming sessions with both internal and external individuals will help the organizations to determine the needs of the client and how to deliver it. For example, staff who are working with day-to-day operations in the frontlines as customer service or call center will understand the needs of the customer and clients. Therefore, having employees from different levels will help to understand how fill the gaps in more practical way. On the

other hand, customers will inform the organizations what they are expecting and how they can improve. These sessions will allow the organization to understand the concerns of the clients and how to improve the services.

- Research and development sections in the organizations should have a special team for ITM or a separate team or department. The main task for this team is to look for the developments and the updates within the digital transformation and to write reports with recommendations for the managements. This will help to understand the changes and to cope with the changes in digital transformation.
- Increase the awareness about the trust between the organization and the clients via social media platforms, emails, SMS or annual events.
- Create platforms and assign point of contact to answer the inquiries about any related issue to privacy and trust. Also, encourage the clients to give feedback, through automated surveys after each digital services or call back or emails. Also, live chat and interactive platforms will help to engage more with the client. Interduce loyalty or promotion for client who participate, thus will help to understand the current situation and challenges and to set up an important plan. also, live chat or interactive platforms can help to
- Share the best practices locally and internationally. It can be business to business meetings or business and government or in international events and conferences.
- Enhance the transparency and thus can include publish more reports that shows how they did use the data and how they are improving.
- Expanding the efforts by setting up KPI's and continue auditing process to control the quality and to ensure that trust is taken under consideration within organizations.
- Establish a prize for trust wining organizations.

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Appendix: Interviews

Interview Number One

Telecommunication Regulatory and Digital Authority

1. With the current technological revaluation, and the importance of technology in our life, how your organization enhance the trust with the client when it's come to privacy?

Telecommunication Regulatory and Digital Authority (TDRA), with its mandate to digitally transform services for the public happiness and regulating the telecommunication sector, has functions to increase public trust in government/private sector services by setting the necessary measures and polices. Example to elaborate on some of the efforts:

- In Telecom sector, directions made to service providers and telecom operators to protect personal information from sharing and exposing without prior consent.
- Regulations addressing Internet of Things and SPAM messages, were issued to regulate and address users' privacy.
- Internet Access Management policy, which specifies content categories which could be malicious or phishing sites that can harm user's data on the internet.
- Internet security coordination efforts with other agencies (computer emergency response team), tasked to increase awareness and to work with law enforcement agencies to protect user's information online.
- Outreach and Capacity Building efforts – open training platform and outreach campaigns to raise awareness digital concepts, skills and user's rights.
- Secure Document Sharing platform - Digital Vault Trust Platform (Sharing Documents enabled with User Consent)

2. Does your organization have a conduct code or code of ethics for technology use?

Yes, its falls under the concept of "Acceptable use policy" which targets the organization assets, in terms of proper use (for hardware, software, applications list). The policy guides staff to request official applications only, for example, to avoid privacy breach by using untrusted applications.

Additionally, TDRA, has a role in evaluating federal government websites and services, and recently in the direction of having all government services in one digital platform (single seamless window), where policies/controls will be unified to have great user experience with high trust.

3. Should organizations follow the letter of the law or be guided by ethics-based principles?

Law or Policy sets clear expectations and lays the necessary foundation around responsibilities and liabilities (penalties) in-case of clause breach. This establishes stable environment for transactions, however in a dynamic environment where technology advances faster than any law, the balance is always required. the balanced approach, is what has been practiced globally.

Ethics based principles are also disseminated, shared, and encouraged, since there could be cases and new trends, that are not captured in any current law nor any policy. These examples are usually seen in new technological trends such as autonomous cars, use of AI, online gaming, remote working. For any organization to stay effective, is to keep an open eye for these evolving trends to measure and calibrate the balance required.

4. How the organization determine the needs to adapt and cope with the digital and technological changes and to restore the trust of society (digital trust)?

Today every entity/nation is required to continue assessing internal and external changes and use future outlook and innovation tools to forecast and predict changes before it happens.

5. Are there any challenges that faced the organization when it's come to trust? and how do you deal with it.

- **Public Trust in using the right application during the 1st year of Covid19 pandemic:**

TDRA with close cooperation with other government and non-government partners, published a list of trusted online applications for most of the users and society members (applications for remote work, applications for products and service, applications for medications,etc). This list effective, as it helped users to use trusted applications while staying at home and away from work. It was critical to maintain business as usual using the right tools/communication and increase trust in a very unprecedented time.

6. How can organizations better align with their stakeholder's interests?
    - Listen and outreach and be always flexible and open to change

- Convene Focus sectorial/interest groups, to seek feedback, raise concerns
- Always test new concepts / models
- Take time in outreach / gradual implementation of new services and methods to gain trust
- Lead by example

7. In your opinion, how the stakeholders will be affected and how should they be involved (trust)

Every policy or decision will affect certain group of stakeholders, whether by relaxing or restricting or adding freedoms/requirements. Stakeholders needs to be responsible and act as change agents for the better of the society, in taking active role in shaping policy or a direction. Stakeholder participation by filling surveys, showing up to discussions/gatherings, documenting feedback and expressing sentiments are very crucial material for change. Additionally, the use of service or specific technology, could also be a signal or a direction of favoring or not favoring a specific approach. Lastly, it's important to voice out concerns using proper channels on time.

8. With the immediacy of social media, how can real-time accountability be achieved?

I think when it comes to real time accountability, it's essential to state and communicate the roles and responsibilities to all providers in the digital channel from digital content providers to the recipient. A culture of coordination is required to address accountability in cases of failure or breach of terms and conditions.

In TDRA we maintain coordination efforts ongoing with key global social media players (Facebook, twitter, Instagram.etc). We have taken the efforts in providing verification service for government accounts on twitter as one of the initiatives to build digital trust.

9. With so many digital processes operating at a level we can't see or understand, what level of transparency is needed?

I think we can summarize it as the transparency level should be "Fit for the purpose". transparency comes with effort, continuous planning, and improvements. Increasing transparency will set the right expectations level and also enable the entity to shed the light on issues or risks before it happens.

Improving transparency, will improve communication and builds a culture all around achieving ultimate shared goals and addressing actual issues with confidence.

10. How will institutions need to monitor and report on digital trust, both internally and externally?

Entities needs to initiate a systematic process to develop and update plans/strategies to address the digital trust in broad terms, in a way that captures the full spectrum of key actors (government, private, non-profit, technology player, content cloud server provides, consumers ..etc) interests and expectations. Entities are required to harness and process data that would reflect the current scene of risk in technology/policy/people. Once risks/issues / trends identified, then it goes back to update the plan and strategy accordingly with clear position on how move next.

11. When it comes to transparency, is auditing required and how should it be done?

An organization is living body that breaths In and out a culture that evolves around people, hence a future outlook and good sense on how things are conducted, executed and reported may be helpful. A formal audit can be embedded in a monthly project's reviews meeting and within risk analysis exercise. Leaders needs to be vigilant to different signs of change in tone or figures or data, as this could be a sign of transparency issue.

12. What is the requirement or process in order to ensure digital trust?

In our strategy efforts, we use standards methodologies to address outlook and refine next organizational directions, based on active sense of trends and major advancements. We use tools such as PESTEL and SWOT to analyze situations to start with, and then gather trends surrounding these key areas (Political, Economic, Social, Technological, Environment, Legal) to come up with a model and understanding of where we want to be.

Applying the above on digital trust, dictates how to address the technological practices in the organization in terms of technology selection, service provisions, maintenance, and upgrade. Additionally, since TDRA works as a Smart Government enabler to other Federal government entities services, the enabling technology tools are used to achieve interoperability and service efficiency.

Additionally, we undertake national efforts in raising

knowledge and awareness to build trust environment for commercial or civil transactions to occur. We have initiated so many projects that facilitate building digital trust such as:

- UAEPASS – first UAE digital identity solution.
- Government Service Bus – enabling secure service integration cross government.
- Digital signature – first high qualified signature that links the user identity to his signature and the document subject, that can be further validated digitally.

lastly, international cooperation is key work areas, as we are part of a bigger global map, hence learning from other experiences and contributing to ongoing discussions/working groups and taking clear stand, elevate and promote further the national digital trust agenda.

Interview Number Two

Abu Dhabi digital authority

1. With the current technological revaluation, and the importance of technology in our life, how your organization enhance the trust with the client when it's come to privacy?

   We have included specific privacy policy in all fronts facing services targeting customers. All information is encrypted in transition and at rest. We have policy that determines which data are stored and which data stays with the customer.

2. Does your organization have a conduct code or code of ethics for technology use?

   Yes, we do have code of conduct for employees.

3. Should organizations follow the letter of the law or be guided by ethics-based principles?
4. How the organization determine the needs to adapt and cope with the digital and technological changes and to restore the trust of society (digital trust)?

The government adopted multiple policies and technologies to make sure that customers can do business with the government in a safe and secure manner, such as, encryption, segregation of duties, zero trust model, Microservices and more.

5. Are there any challenges that faced the organization when it's come to trust? and how do you deal with it. Please mention a case and how it was solved.

No cases have been faced at till date

6. How can organizations better align with their stakeholders' interests?

7. In your opinion, how the stakeholders will be affected and how should they be involved (trust)

We do focus groups, we do co create workshops with customers and stakeholders, we also conduct A/B testing for certain products ahead of release.

8. With the immediacy of social media, how can real-time accountability be achieved?

9. With so many digital processes operating at a level we can't see or understand, what level of transparency is needed?

10. Any major shift in a digital trust needs to grow into an organization-wide effort to make an impact.

To give customers privacy assurance, it's important to focus on transparency.

11. How will institutions need to monitor and report on digital trust, both internally and externally?

12. When it comes to transparency, is auditing required and how should it be done?

Auditing is required and it should be an integral part of the origination design

13. What is the requirement or process in order to ensure digital trust?

    - Governance & Compliance
    - Information classifications
    - The right digital architecture
    - Data ownership and Stewardship
    - Service Resiliency
    - Security Policy

Interview Number Three

Dubai SMART government – Fatma AlQasimi

1. With the current technological revaluation, and the importance of technology in our life, how your organization enhance the trust with the client when it comes to privacy?

   Privacy and Security is one of the major pillars to enhance the trust which is done currently by improving the accuracy of consumer data by integrating with Governmental Organization of Dubai such as Dubai Digital Authority, Emirates Identity Authority, RTA, DED, Dewa, Dubai Police etc.,

   Dubai SMART government is protecting customer privacy by encrypting all the consumer data on the other hand verifying the identity of people claiming to be customers by reducing impersonation and fraud by applying two-factor authentication.

   Proactively alerting users in the event of suspicious account activity, user monitoring based on AI and machine learning with trends of user activity based on daily access, password resets and Brut force attacks and no of login attempts.

   To further enhance privacy, DM conducts
   a) Awareness session
   b) Review of privacy policy as required
   c) Access is provided to users through Privilege access management

   100% of Automation for all the systems and services in Dubai SMART government and AI has been enabled in social media like Chatbot, WhatsApp, also integrated with all automated systems.

   Food Safety system is powered by AI with use cases such as
   a) Risk assessment of food being imported into UAE
   b) Auto Label classification and complete automation of the service transaction without human involvement
   c) Fully automated Food item registration with AI.

2. Does your organization have a conduct code or code of ethics for technology use?

   We are one of the government entities in Dubai, we follow all the policies and procedure defined by Dubai Digital Authority and further conduct training, regular audits, awareness sessions.

3. Should organizations follow the letter of the law or be guided by ethics-based principles?

   We are following both Letter of Law issued by Legislative Department, Federal laws and Dubai Executive Council laws and Code of Ethics as described by Dubai Digital Authority.

4. How the organization determine the needs to adapt and cope with the digital and technological changes and to restore the trust of society (digital trust)?

   We at Dubai Municipality, conduct frequent session with customers through social media, Survey, Interviews to capture the needs of the customers, and we are rapidly enhancing the services adopting to digitization, Dubai SMART government is one of the organizations which went 100% digitized with 0% utilization of papers.

   Internally we have enhanced IT infrastructure with best of technologies using Big Data, Artificial Intelligence under Security Operations center to monitor threats and attacks, protecting customer data 24/7 round the clock.

   To further enhance digital trust, DM conducts
   - Awareness session
   - Review of privacy policy as required
   - Access is provided to users through Privilege access management

5. Are there any challenges that faced the organization when it's come to trust? and how do you deal with it.

   Every Organization faces some sort of challenges, but with the policies, procedures, continuous tracking, monitoring and round the clock monitoring centers brings the level of risk low and protecting and increase the trust of Dubai SMART government customers.

6. How can organizations better align with their stakeholders' interests?

   Customer Partnership and Relationship department often conducts sessions with the

stakeholders, to know their needs and to identify the pain areas. Stakeholder analysis captured through interviews, surveys, awareness sessions and social media, we listen to voice of customer through various channels like Chatbot, Instagram, Facebook, Twitter, and we internal validate the sentiments of customer to enhance our digital road map.

DM also considers customer happiness index, which is enabled across all the channels of Dubai Municipality, including Portal, Mobile App, and Customer Service Centers. We as Dubai SMART government conduct satisfaction surveys to Vendors and Governmental entities.

Dubai SMART government also considers Survey results from Dubai Statistics center for evaluation of their stakeholder.

7. In your opinion, how the stakeholders will be affected and how should they be involved (trust)

   Dubai SMART government is a Governmental organization and stakeholders are the key for their success stories. Dubai SMART government consults its stakeholder to address their needs and concerns on timely basis, Dubai SMART government works on focused groups of stakeholders, analyze requirements/concerns, put an action plan to address this and act on the concerns and finally review the results of the action plan, post surveys are conducted to make sure the stakeholders are satisfied.

8. With the immediacy of social media, how can real-time accountability be achieved?

   Dubai SMART government has a Unified Customer Engagement hub, which is fully integrated in real time with Chatbot, WhatsApp, Facebook, Instagram, Twitter and enabled with Big Data and Artificial Intelligence to conduct Sentimental analysis in real time, so that Dubai SMART government can address the customers in real time. Digital brand protection, to avoid defaming of Dubai SMART government and its Managerial staff.

9. With so many digital processes operating at a level we can't see or understand, what level of transparency is needed?

   Dubai SMART government has huge set to digital processes operating and to monitor this process we do have KPI'S defined and all the KPI'S are tracked on Monthly, Quarterly, Half Yearly, and yearly based.

   We adopt Business Intelligence to forecast the KPI Performance and apply needed contingency plan to provide the transparency needed.

   All levels of management monitoring are enabled with Role level security providing the right control to take necessary data driven decisions.

   Dubai SMART government is providing Customer 360-degree view with all the customer transactions in one single place by utilizing big data as a single source of truth.

10. How will institutions need to monitor and report on digital trust, both internally and externally?

    We Dubai SMART government monitor Digital trust through

    Legitimacy: How Dubai SMART government can align with stakeholder interests, which stakeholders will be impacted?

    Effectiveness: How Dubai SMART government will apply Dubai Law and best followed by code of ethics define by Dubai Digital Authority, social media real time accountability and formation of new committees within the organization

    Transparency: Defining of Digital processes and monitoring through KPI'S, auditing of the processes to re-examine and improvement or formation of new processes. Customer 360-degree view on the transactions within single platform.

11. When it comes to transparency, is auditing required and how should it be done?

    In order to demonstrate confidence in the internal controls and compliance capabilities, audit is mandatory required.

    Audit is done by

    1. Automation of the KPI'S and monitoring through Business Intelligence platforms
    2. Security Office monitoring enterprise-wide processes and measurement of DESC compliance
    3. Internal audit team auditing the processes and compliance

4. External audits through third party consultants
5. Governmental audits like FAA.

12. What is the requirement or process in order to ensure digital trust?

In order to ensure digital trust within Dubai Municipality, we employ

1. Defining Policies and procedures related to digital transactions
2. Monitoring of the digital environment based on SLAs and OLAs
3. R&D for selection of best innovative technologies in digital market which ensures the stakeholder trust
4. Ensure Compliance with Dubai Digital Authority, Executive council, and Federal Law
5. Delivery of Services through secure channel and digital certificates are obtained from certified authorities
6. Create an Expert Team comprising of Subject Matter Experts, Continuous Training, and coaching
7. Conduct Security awareness to stakeholders
8. Ensuring Cyber resilience with continuous monitoring of network with security controls to detect vulnerabilities and apply necessary controls to close.

Interview Number Four

ENOC – Amal Almaeeni

1. With the Current Technological Revaluation, and the Importance of Technology in Our Life, How Your Organization Enhance the Trust with The Client When Its Come to Privacy?

ENOC is a prominent global business entity that deals with petroleum. Recently, the form launched ENOCPay, a mobile payment system. The company has installed electronic, physical, and managerial procedures to secure information collected online ("Privacy Policy"). Hence, the ENOC's privacy policy guides data management, thereby enhancing trust with clients.

2. Does Your Organization Have a Conduct Code or Code of Ethics For Technology Use?

The company has a code of ethics for technology use. Notably, clients using the VIP fuel management system have an RFID security chip that tracks fueling transactions ("RFID - Vip (Vehicle Identification Pass"). Only authorized vehicles can be fueled using the digital system. Therefore, ENOC has managed to eliminate fraud from its online sites.

3. Should Organizations Follow the Letter of the Law or Be Guided by Ethics-Based Principles?

Ethics-based principles should guide organizations. An ethics principle would be beneficial to enable workers and managers to meet clients' needs. A code of ethics helps to identify and characterize a company to its stakeholders.

4. How the Organization Determine the Needs to Adapt and Cope with the Digital and Technological Changes and to Restore the Trust of Society (Digital Trust)?

ENOC continually adapts to technological changes by sampling customer feedback. With many clients looking out for accessible services, the company has launched eLink Station, bringing services closer to people ("Dubai'S ENOC Launches World'S First 'Elink' Stations"). Therefore, the company has managed to restore digital trust.

5. Are There Any Challenges That Faced the Organization When Its Come to Trust? And How Do You Deal with It.

ENOC has faced several trust-related challenges. Developments such as Brexit, sanctions against Iran, and political uncertainties in European countries have negatively affected their trust index in the international market (*2018 Sustainability Performance Report* 63). ENOC deals with trust issues through an enterprise risk management policy to reassure customers of credible services.

6. How Can Organizations Better Align with Their Stakeholders' Interests?

The primary step is identifying stakeholders in a business. Managers should also listen and communicate with stakeholders constantly. Organizations can align with partners' interests by integrating their opinions in new projects and organizational changes.

7. In Your Opinion, How the Stakeholders Will Be Affected and How Should They Be Involved (Trust)

Recent developments in ENOC will affect stakeholders, particularly investors. Elink Station means that ENOC will restructure its business

strategies in fuel distribution ("Dubai'S ENOC Launches World'S First 'Elink' Stations"). Stakeholders should be involved through employee newsletters, regular meetings, and surveys since engagement guarantees funding for new projects.

8. With the Immediacy of social media, How Can Real-Time Accountability Be Achieved?

Companies need to establish credible customer experience in the age of social media. Using remote product experts is a primary method to maintain accountability. Experts provide support to clients in both pre and post-purchase periods (Parise et al. 4). Active client engagement is the best alternative to maintain real-time accountability.

9. With So Many Digital Processes Operating at a Level We Can't See or Understand, What Level of Transparency is Needed?

Transparency is paramount on digital platforms. A high level of openness would involve quality controls instituted through ratings, reviews, and endorsements credited via online systems (Veltri et al. 3). Transactions should also be stored on secure servers since transparency is multidimensional in business entities.

10. How Will Institutions Need to Monitor and Report on Digital Trust, Both Internally and Externally?

User reviews are a reliable method to monitor digital trust. Firms depend on online reviews to evaluate products (Veltri et al. 5). Websites and social media sites are trustworthy sources to obtain credible feedback. Reporting on digital trust is fundamental in customer relations.

11. When it Comes to Transparency, Is Auditing Required and How Should It Be Done?

Auditing is paramount to achieve transparency. Companies should provide detailed descriptions of procedures and systems (Deumes et al. 4). Therefore, auditors assess the submissions and provide reports that illustrate an organization's general outlook.

12. What is the Requirement or Process in Order to Ensure Digital Trust?

Managing trust on digital platforms is central to the delivery of business strategy. The process begins with cybersecurity, data confidence, and installing credible business systems ("Pwc in London"). Resilience in information technology and transformation confidence are also paramount strategies. Digital trust can be enhanced through innovative approaches.