OPTIMIZING THE OPERATION OF CORPORATE AND GOVERNMENT SERVICES THROUGH AUTOMATION- AN INNOVATIVE APPROACH

AYOUB KAZIM

Department of Government and Corporate Services- axs,
TECOM Group - P. O. Box 73000 Dubai, United Arab Emirates
E-mail: akazim@axs.ae

Abstract - Innovation across industries is largely driven by the rapid technological advancements taking place and corporates have to embrace them for enhancing customer's experience. axs, which is an operational entity of TECOM Group in Dubai started its digital journey end of 2014 with the main focus on employing advanced technologies in upgrading its service level to its partners. In this paper, 3 advanced methods were applied in the department namely digitization of archiving system, usage of Genesys system in upgrading the system used in the Call Center and deployment of robotic process automation in the back office processing government services. The achieved results exhibited major improvements in terms of higher customer engagement with over 6% in 2 years period, shorter duration of the services delivered to the partners, achieving more visibility on the customers' profiles and their expectations and elimination of process errors in the back office and above all achievement an improvement of 30% in the employee engagement in the department.

Keyword - Digitization, Robotic Process Automation, Artificial Intelligence, Customer Engagement.

I. INTRODUCTION

Commonly, businesses require a great deal of support to process government and corporate transactions such as licensing, leasing and visa issuance as well as Customer Care intended to respond to the challenges faced by the customers. The level of support received has become a fundamental factor in evaluating any business environment, as it enables companies to get their businesses done with minimal effort and allows them to focus on the processes that add value. As our world becomes more fast-paced and globalized, the speed and convenience of these service transactions will have to evolve and improve to keep up with demand, and to enable and sustain business growth and efficiency. This shift has led to the emergence of concepts such as the single-window system that offers all relevant services in one place, maximising the convenience in obtaining permits and licenses. These developments prove that the government authorities are serious about providing the highest levels of services in tune with the needs of their clientele, particularly small and medium enterprises that are considered the backbone of any economy. In recent years, the UAE has been recognized across several international rankings for its business-friendly ecosystem. In the Global Competitiveness Report 2017-2018, issued by the World Economic Forum (WEF) in September 2017, the UAE was ranked first among Arab countries and 17th worldwide, including it among the world's top 20 competitive economies for the fifth consecutive year[1]. More recently, in the World Bank's report on Doing Business 2018, the UAE climbed five places in the overall international ranking to the 21st position, dominating the Arab countries covered in the report for the fifth year in a row [2]. The UAE is one of the top 10 countries in the world on five of the 11 indicators evaluated – first in terms of taxation and electricity supply, second in issuing construction permits, and 10th in protecting minority investors as well as ease of registering property. The World Economic Forum also said recently that the UAE along with Brazil and Denmark, have joined the forumcentre for the fourth industrial revolution, to close the growing gap between emerging technologies and policy development. Over the past years, the United Arab Emirates (UAE) have been seriously focusing on such areas by setting host of strategies, most notably the UAE Vision 2021, UAE National Innovation Strategy, Dubai Plan 2021 and Smart Dubai. In the World Economic Forum's (WEF) global competitiveness ranking, the UAE was ranked 17thin the world but continued to take the leading position the Arab World. "This improvement shows the resilience of the UAE economy, in part due to increased diversification, which is reflected in its stable macroeconomic environment and its ability to weather the double shock of lower oil and gas prices and reduced global trade", according to the report rose one spot to 16th in 2016-17 [3]. The WEF pointed to gains in "technological adoption and business sophistication" in explaining the rise. The country assumed 13th position in the business sophistication pillar, 24th on technological readiness pillar and 25th on innovation pillar. In summary- as the world is changing, the work environment is changing prompting policy makers and businesses to adapt to changes and embrace them.

II. AXS AND TECOM GROUP

TECOM Group was established in 1999 as part of a large conglomerate venture in the Emirate of Dubai

aiming to diversify city's economy and make it home of SME's and multinational companies such as Microsoft, Oracle, HP, CNN, Pfizer among others.Company's journey of automation and digitization of services rendered to its communities started late in 2014 through exploring the possibilities of creating digital echo system. This drive led to creation of axs, which is considered a digital backbone operation of TECOM's Group.Currently, axs renders its services to over 5600 SMEs, large and multinational companieshosting around 100,000 workforce, their dependent and students across TECOM Group communities - including Dubai Internet City, Dubai Outsource City, Dubai Knowledge Park, Academic City, Media City, Dubai Design District and Industrial City. So far, axs has completed over 1.1 million transactions to date. At this point of time, there are over 200 offered services related to licensing and registration, lease management, government services with regards to visa and immigration and customer care as shown in Fig.1.



Fig. 1 axs digital platform

Annually, axs processes over 300,000 transactions, including student working permit visa processing, which launched at the beginning of this year.Through its strategic partnerships with government entities including Dubai Department of Economic Development, Emirates Identity Authority, Dubai Health Authority, General Directorate of Residency and Foreigners Affairs, Dubai Customs and Emirates Post Group, axs offers seamless governmental services required by companies and professionals.

Since its inception, axs has won 4 awards, one of which is the International Business Quality Award for Government Services, and recently, axs received the Gulf Customer Experience Awards Gulf Award for Government Services, as well as the Best Call Center Award and Smart Technology Solution Providers Excellence Award' at the 23rd GCC Smart Government and Smart Cities Conference.

For the past 4 years, axs started exploring various opportunities to automate its services to its partners and their employees and dependents. Many initiatives were undertaken since then and in this paper, 3 technological projects that have been tested and deployed are going to be presented. Theseinitiatives are namely digitization of archiving system, upgrading of the Call Center through Genesys and implementation of robotic process automation (RPA) in the back office concerned with processing visa applications.

III. DIGITIZATION OF THE ARCHIVING SYSTEM

Digitization is considered a process of converting hard-copy or non-digital records into digital format. The benefits associated with such process are numerous such as accessibility of the records by more than 1 user and in any location, better integration with business information systems, saving space and be back-up during disasters among others [4].

Since its inception in 1999, TECOM Group had physically archived all of its government related employment services of visas, labor contracts and visa quota in a large archiving facility. The department as well as the customers were totally dependent on the efforts exerted by an individual who would process the request of document retrieval from among 8 million documents (visas cancellations, additional visas, labor contracts etc.) of all the companies operating in TECOM economic zones was extremely difficult and time consuming, which required at least 2 working days. Moreover, the space required for archiving the documents was considered another issue that needed to be tackled as the required space to accommodate these documents should have a specific size of no less than 1,500 sqft, air-cooled and equipped with all the safety and security measures since these were sensitive documents. During the digitization process, all relevant documents were scanned and uploaded in system in the Salesforce where the documents obtained instantly by the user. Moreover, increased storage capacity and reduced dependence on paper records as well as improving tracking and controlling of active files and contents when supported by necessary functionality.

IV. UPGRADING THE CALL CENTER

Customer experience solutions should enable you to know your customers, anticipate their needs and desires, and intelligently respond to them when and how they prefer. But if your current customer experience reality involves limited channels, incoherent customer information and technology boundaries that impact business operations or degrade customer experiences, it's likely time for a Fig. 2



Fig. 2 Demographic view of the customers

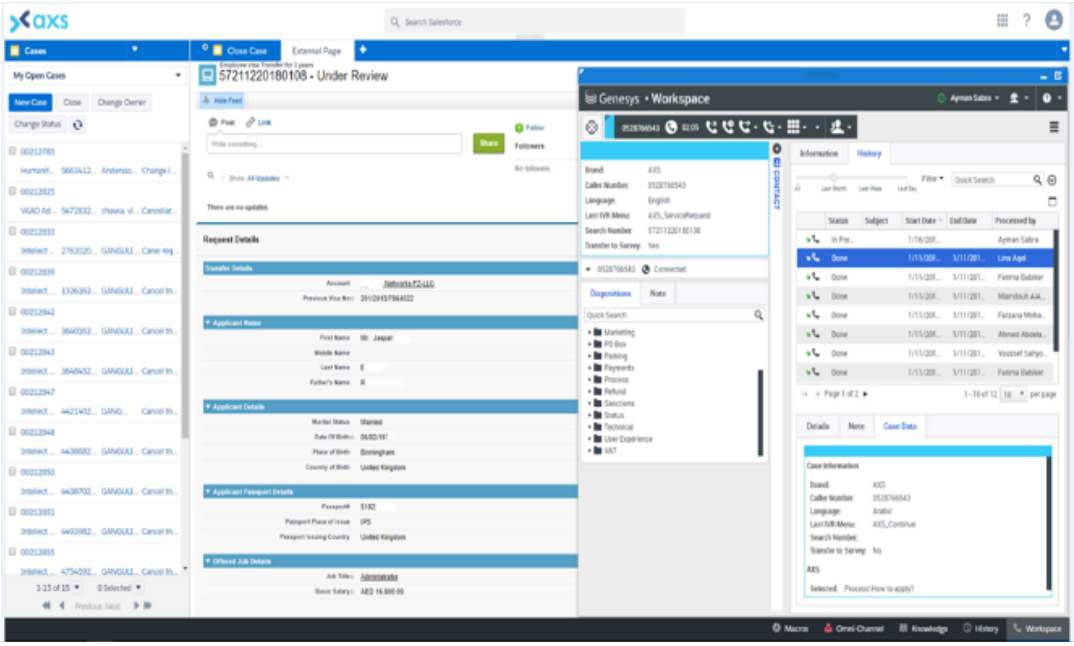


Fig. 3 Incoming Call View & CRM Integration

change [5]. To clearly understand customers' needs and expectation, a demographic view of the customers was established in axs dashboard as depicted in Fig.2

Similar to majority of organizations, the Call Center in TECOM Group was considered obsolete and needed a major upgrade to be in line with technologies adopted by world class in doing business. upgrade of axs Call Center involve the integration of the Genesys system, used by large entities in UAE, that can, in addition to other advanced features, identify callers' information and the nature of their economic activity, personal information, such as passport and visa expiry dates of the callers and their sponsored from only their telephone numbers. Incorporating other state-of-the-art technologies in the near future and utilize social media to receive feedback and build databases for use in the event of need.Integration with the customer relationship management (CRM) is considered of outmost important aspect of any business operation, such requirement was one of the key points that uplifted the service level of the call center in order to obtain a full historic view of the customers' and requirements. Fig.3 and Fig. 4 exhibit a sample of customer's view and integration with the CRM and Call Center dashboard, respectively.

Now although there are many technology providers in the market, selecting the right one should be out most important aspect in adopting a new technology. After careful consideration, Genesys was selected due to its market outreach, brand name, functionality in terms of reporting, customer visibility and tracking agents' performance as well as support service after the sale. The 2018 Gartner Magic Quadrant Contact Center as a Service (CCaaS) evaluated 10 vendors on their ability to execute driving customer experience success.

Not only is Genesys named a Leader in the 2018 Gartner MQ for CCaaS, they placed farthest to the right for completeness of vision [6].

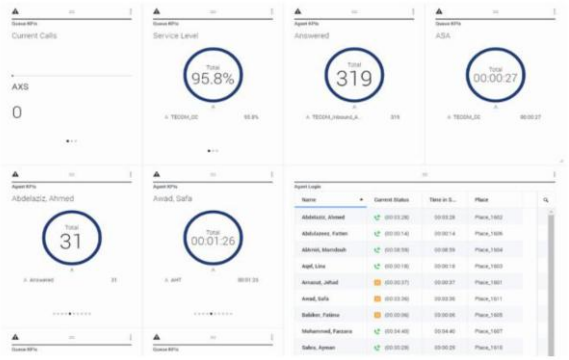


Fig. 4 Call Center dashboard

V. ROBOTIC PROCESS AUTOMATION (RPA)

Basically, an RPA tool operates by mapping a process in the RPA tool language for the software robot to follow, with runtime allocated to execute the script by a control dashboard [7]. Hence, RPA tools aim to reduce the burden of repetitive, simple tasks on employees [8]. Now adoptingto new technology such as robotics technology to automate repetitive tasks drives and enables us to empower our employees to oversee this technology and to optimize the customer experience and to focus on the overall success of our business operations. axs looks at RPA, which is considered a transformational technology, from the business strategy perspective. RPA is the opportunity to critically re-consider a subset of core business processes such as the government services.

We simplify, de-risk and structure any high-volume activities, which are subject to demand peaks and troughs. We first see that these can be controlled and

turned into credible routines and then we design to augment our human workforce with these very smart, productive bots. axs has only gone live with the automation this January. The key metrics that axs will adopt to measure the success of the RPA are the true online experience of our customer portal, with 24/7 execution of the bots, the consistency of service and how well we are managing through the peaks of services such as when students admissions are requested in bulk during July to September. Apart from the technology, the rigor that RPA allows the operations to manage by exceptions, digitally tracking cases in a manner where we learn from the process and where resolutions are repeatable. On the down side, RPA agents mimicking people can start making incorrect decisions because of contextual changes. This may remain unnoticed for some time, leading to disastrous situations. There are also ethical and security risks when RPA agents impersonate people [9]. After careful considerations, Blue Prism was selected as a result of delivering world-class RPA implementations for nearly two decades. That hands-on experience has given us real drilled-down, practical knowledge of the RPA delivery process. They have created the Robotic Operation Model to give every Blue Prism user a clear methodology for their automation delivery [10].

VI. RESULTS AND DISCUSSION

Major Innovation across industries is largely driven by the rapid technological advancements taking place. However, innovation for us is also driven by progressive public policies, and progressive initiatives that direct us in the way we use innovation.

Now since the implementation of the above three initiatives for over two years, major improvements have been acknowledged and recorded across various areas such as headcounts optimization, employees' and customers' engagements, speed of service delivery, customer's data reporting and visibility among others. Below are the main findings of the achieved results:

- The government related processes were further enhanced and expedited reducing the timeframe of each transaction to be reduced by 50%. On the employees' performance, the employee Fig. 5 Outcome of digitization and RPA on government services engagement have improved by 30% as a result of reassignment of the back office employees to different tasks and projects rather than working on routine tasks such as processing employees visas,which were handled by bots through the RPA implementation.
- More rapid responses achieved through errors free digitization of all labor contracts fed into Salesforce where the documents are retrieved instantly.
- Similarly, customer's engagement exhibited a significant improvement over the past two years by more than 6% as a result of automation of government services and making easily accessible to all companies operating in TECOM's economic zones with utilization rate of the axs platform of 100% is achieved, automating over 80 services relate to employees' affairs such as salary certificate, no objection certificates among others. Moreover, customers started to view their own dashboards where they could track their employees'residency status, obtain detail demographics of their employees and their dependents.
- The upgrade of the contact center in better understanding the customer's challenge as well as better implementation of knowledge management among the call Center agents. With such upgrade of the system, a 96% compliance was achieved and with over 114,785 received tickets till date. Definitely, this would be a major improvement of 31% after the upgrade where it used to be only 65% shown in Fig. 6.





Since the strategy of axs is strongly aligned with government's vision and direction, more efforts will be exerted on new technologies such as blockchain where all local government transactions will be hooked to blockchain technology by 2020 [11]. Such revolutionary concept will lead to a more transparent, safe and secure processes and drastically Fig. 6, Outcome of Genesys implementation on Call Center eliminate any manipulation in the conducted transactions. Moreover, all the transactions will becarried out are going to be part of government's vision of having paperless transactions and cutting

the number of paper transactions by almost 100 million a year. Finally, leveraging on artificial intelligence (AI) to obtain data that can help axs to arrive getting a more concrete evidence and to enable making strategic decisions, understand crucial market trends and monitor growth across sectors. This data will assist axs in identifying the strengths and weaknesses of prospective business partners, as well as in attracting companies from vital sectors poisedfor growth, and advising companies specializing in niche sectors.

Research shows that government institutions can save resources, create efficiencies, and save around 50% of finances by deploying artificial intelligence (AI) to perform the task. In addition to reducing time and effort, smart investment in AI could significantly help cut down on operational expenses. Experts at Gartner Customer Experience Summit by Gartner Summits predicts that 25% of customer service operations will use virtual customer assistance by 2020 and forecasted that the future of the service industry will be dominated by artificial intelligence. With AI's capabilities to provide an intelligent, convenient and informed customer experience, we will see a boost in efficiency with leaner organizations and the resources to invest in other areas of growth [12].

VII. CONCLUSION

axs, an operational entity of TECOM Group in Dubai started its digital journey in 2014 with the main focus on employing advanced technologies in upgrading its service level to its partners located in 11 economic zones under the group. In this paper, 3 advanced methods were applied in the organization to enhance its operational and financial efficiencies. The achieved results demonstrated a significant improvement in customer's engagement, employee engagement, and speed of service delivery and elimination of all human errors that could be committed during processing customer's request. Finally, leveraging on these technologies will open the door to adopt more initiatives intended to serve the customers through artificial intelligence, big data and blockchain technology as well as paperless transactions across various services intended to enhance the customer's experience.

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