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The Empowered of Payment Gateway for Government Entities in Sultanate of Oman

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Abstract

The goal of this research is to identify the importance of integrate the government entities with payment gateway and collect the required fee. Also, the factors that will affect the merchants' intention to adopt online payment gateway in government sector in Sultanate of Oman. The research is done qualitatively and the data collection method being used is interview. The interview was done with one seiner from Royal Oman Police and Ministry of Manpower as the largest government entities in the country. Through the research it presents the payment lifecycle for each entity since old days up to date. Additionally, it is showed the importance on the progress with the latest technology used of collecting fee instead of the traditional technique. Also, it is recommended for online payment gateway providers for the government entities in Sultanate of Oman to attract the organization by improving the systems, social influence activities, facilitation, and secure environments. Finally, this research has enlightened and enhanced the government sector in Sultanate of Oman knowledge of current situation of e-commerce especially online payment gateway and importance of ecosystem.

Keywords: Government Entities, Online Payment Gateway, Payment Lifecycle, Ecosystem

Introduction

What is payment gateway mean? Its gateway facility allows the online business to complete the payment part without attend the cardholder to the physically location/shop. It is authorized e-commerce transaction to complete without any complicated process and queue. Furthermore, an ecommerce system that allows cardholder to authorize transaction payment for the targeted services/business online without going back to the traditional business method. It is great extent of merchant business and expends with fully understanding the scope of payment process. Additionally, open the merchant business to a wider audience without restricted time. Also, taken merchant service level to the next generation level (e-government Services, 2019).

The payment gateway looking for nine aspects which are; modern or classic, encryption standard, compatibility, speed, reporting feathers, fraud detection, and other security

features, invoicing capabilities, UI and usability, cost and fees. Those features make the payment gateway significant for business and secure payment (Alton, 2017).

Globally the economy is creativity extended through simplify the digitization payment solution which offered in the market either for merchant or customer. With huge count of transaction processing in daily basis the technology needs to be attending for the proper solution. Currently, there are multi methods and techies of payment utilized in the market which are traditional or modern. However, there are faster, easier, secure methods which merchant need to go through it and provide the flexible scheme for customer to complete the traditional within second without any delay.

Usually, how are providing the payment gateway services to merchants? The right organization can offer this service in market is the bank either domestic or international. Those banks should be accepting both kind of cards debit and credit, Visa, MasterCard, Amex, and Diners which assisting the cardholder to process the payment without any challenge. Furthermore, to find the right provider of payment gateway provider need to keep in consideration the network security, customer experience, all cards acceptance, and fees (PayPal, 2018).

What is payment gateway able to offer for merchant/customer/banks? Its one proven for all the partners needs overall the bsuiness provide in the market place without any restricted time.



Figure 1: Benefits of payment gateway

Payment gateways have several of benefit in term of customer, merchants, and banks. Every one utilizing payment gateway will benefit and able to help others for the same. Sultanate of Oman is one of the development countries and using the technology to improve the services for citizens, and residence. Particularly in government sector, where everyone targeted this sector to have the legal required licences. Payment gateway is centralized the operational and payment settlement to ensure there is no human touch point to complete the process and delay happen anyhow. As stated by Information Technology Authority (ITA) in official website the benefit of payment gateway has divided to multi beneficiaries like; individual customer, corporate clients, merchants either big or SME's, and banks as well. The benefits come in term of; online offered services, products, free processing fee on the cardholder,

accepting all type of cards, transaction fully secure either using 3D secure or OTP facility, and easy integration with merchant website or mobile app (ITA, 2018)

How government of Oman is will add value from the payment gateway? It is provided reasonable processor payment solution for the government entities and make clients request easier with payment accomplishment within one click from anywhere and anytime. Payment gateway simplifies the payment method for both merchants and customers and can make payments at lightning fast speed without any hassles. It is remotely host applications and software (ISGS, 2016).

Total number of government entities in Sultanate of Oman is ninety-five included semi governments. Those entities provide services to citizens and residence, where some of those services required paying some fees. There are some government entities has utilized payment gateway facility as the final stage of the services which give freedom to clients to pay the fee from anywhere and in anytime without any limitation and restricted period. Furthermore, many advantages will both parties either government entities or beneficiary benefit from payment gateway facility. From government perspective, the payment will be settled online without any delay, saving all the information direct to database no need for paper hardcopy, save the administrative cost, reduce queue at counter, improve economy by transfer fund direct to account without any cash, full cycle audit trail indeed reconciliation, documentation, transaction payment fully secured with 3D secure, One Time Password (OTP), reduce fraud mater, easily operation, and technical support all the time (Authority, E-Payment Gateway, 2019). That's why it is crucial to identify the integration of government entities along with payment gateway, thus this paper formulate the objective so.

Background

Payment Gateway is facility that authorizes bank card either credit or debit to process the transaction and complete payment stage to merchant through merchant website/mobile app. The transaction scope is fully secure and encrypted from end to end. The transaction information is secure it can go through between cardholder and merchant without any challenges. The bank needs to involve and enable payment gateway for merchant and ensure merchant website/mobile app secure. This is increase cardholder convince and encourage them to utilize payment gateway for processing payment.

Nowadays, the customer is seeking for the easier method to obtain the services or products which serve them needs with minimum time and effort. This service is providing by bank to merchants. It required integrating merchant website/mobile app with bank payment page. Through this serve the merchants will benefit such as reduce to used cash, risk of cash, easy settlement, and easy way for customer authentication, and fast method to get transaction authorization from the issuer bank within seconds. There is scope how to work payment gateway in merchant channels. To find the right payment gateway provider need to follow the following guidance (GoCardless, 2016):

- Merchant account, payment gateway required merchant to open account with the acquirer banks. This account is used to settle the payment based on the signed agreement between both parties' merchant and bank. Additionally, the payment gateway final decision either approved or declined the transaction, this is based on the transaction statues which linked between issuer, and acquirer banks.
- Payment Gateway services provider, Payment Service Provider (PSPs) can be act both merchant account provider and payment gateway. This is to helping the merchant to collect the payment and manage the settlement.

- Payment gateway processing scope, there are four major steps payment gateway follow to ensure the payment completed as required. Those steps are; collection the payment, authentication the transaction, authorized the transaction, and make settlement if the transaction approved from the issuer bank without any issue.
- Payment Gateway Option, there are multi option to choose the way suitable for merchant business. One of the quick and easier way merchant get full pack from acquirer bank as account, integration code, support and this kind of integration will be supportive to merchant and fast implementation with settlement. The second option where merchant just obtain the account from bank and utilizing third partners to integrate the website/mobile app with payment gateway page.
- Choose of payment gateway, currently most of the bank have two or three payment gateway provider this is as global perspective. There is local payment gateway provider and international. This is depending on the country deployment and development. Usually, the local gateway accepting local issued debt cards only, and international gateway provider accepting all kinds of cards. Also, merchant need to keep in the consideration the selected banks familiar with payment gateway business, risk, integration and etc.

Currently, in Sultanate of Oman most of government entities still provide them services to citizens and residences with the old-style method. Where the citizens or residences need to visit the government location/ physical location to achieve the services required and pay the fees. This method is not worth for new generation and useless. As it takes long time to gain one services from one organization, in the other hand the clients with the same time can be achieve multi of services with less effort. As follow the scope where client need to follow to get the required service from any government entity without payment gateway integration:

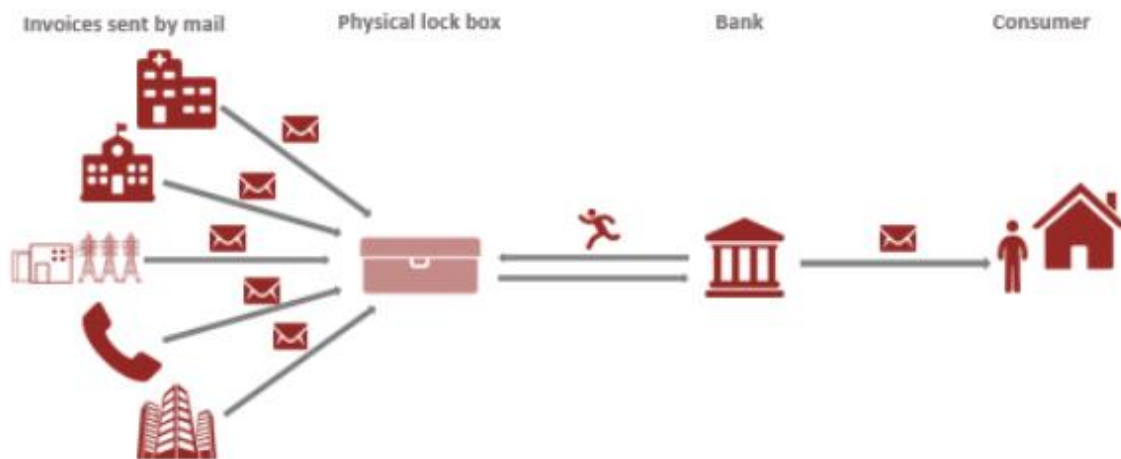


Figure 2: Workflow of Not integrated Government with payment gateway

Oppositely, while merchant integrate with payment gateway will improve the quality of service level and provide quick and easier method to clients to achieve the transaction within few seconds and without any challenges. There are some government entities in Sultanate of Oman has already integrated most of the service to ensure citizens and residences satisfaction and provide the faster service. The workflow for the integrated government merchant will be as follows:

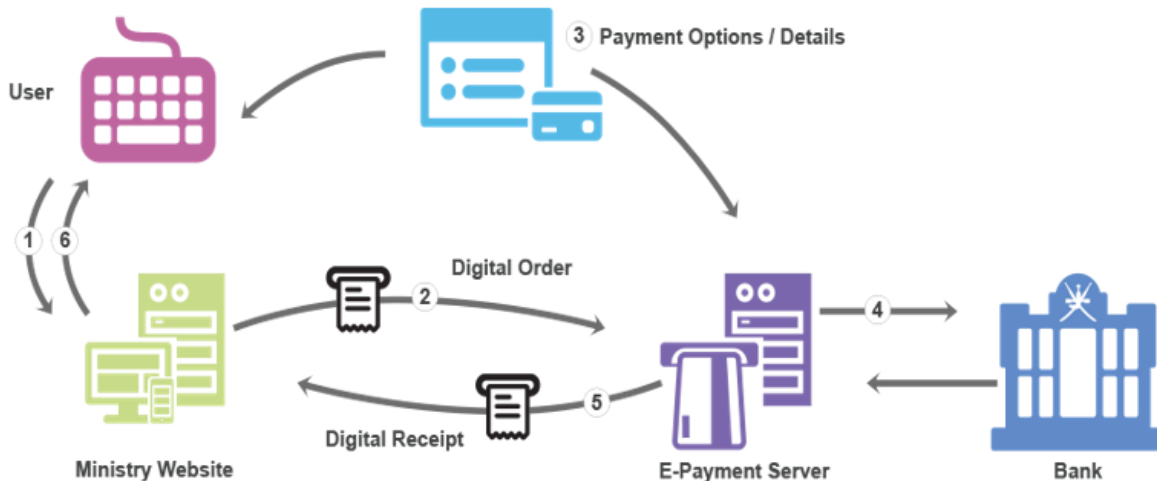


Figure 3 : Workflow of integrated Government with payment gateway (Authority, E-Payment Gateway , 2019)

The most government entities has integrated with payment gateway are, Royal Oman Police one of the largest entity in government sector, Ministry of Manpower responsibly about recruit the employees in private sector and manpower regulator, Ministry of Commerce & Industry responsibly about the country ecommerce, Tender Board responsible about the government tenders, Ministry of Regional Municipalities and Water resources responsible about the business license, Muscat Municipality responsible about the Capital business license and building permits wither individual or corporate. Also, there are several of governments already integrated but, still there is hug number of governments not integrated with payment gateway. Additionally, there is requirement to integrated multi of the service government entities under one portal to provide the one stop satiation service for both citizens and residences (Anil, 2019).

The country really needs to move forward with using latest payment technology to ensure the security of payment transaction. As well, provide the citizens and residences the service from one electronics point without any challenges. The payment gateway supports the web, while various other electronic channels including mobile payment, interactive voice Response (IVR), bill presentment, and any new payment methods and tools. This teaching is meeting the requirements of country need in term of technology development and facilitate transactions for citizens, residences, and investors located in Oman. This technology will add huge valid value for the country economic with easy payment facility. There are many other countries experience in this failed, and improvement of payment facility development.

Literature Review

The daily life utilization of internet and with advancement of technology for lifestyle, the globally lifecycle is shrinking day by day and the business restrictions with expending beyond imagination. The business strategy has been changed for nowadays as they cannot growth without using technology to enhance the business and keep pace with modern generation. The business partners need to work with the market needs. The best infrastructure to ship business is providing the consumer the product/service with faster time and less effort. The world has moved to this direction to ensure the consumer utilized one station from anywhere, in anytime get the requirement done within one click (Nagasubramanian, 2012).

Most of the ecommerce system is depending on the payment facility, where the consumer can pay by using their bank card without any complicated and using secure portal. The payment gateway solutions where the merchant need to utilize this facility and integrate with provide to facilitate payment transaction. Payment Gateway is friendly use to consumer, and mostly secure with 3D or OTP.

The smart delivery of service and product to consumer is one of the significant roles to government. The government need to showed them service on the website/mobile app with full flag, and allow the consumer to complete workflow without any challenges. The governments need to enable payment feature to consumer to ensure the payment cycle work smoothly without any complicated. The payment gateway is a critical infrastructural factor to guarantee that such transaction processed without any complications and transaction workflow should be fully secure and with minimum fraud. Simultaneously, when governments enable the payment gateway facility will gain multi benefits such as have multi option of payment, transaction processing with full secure path, multi settlement currency, and rapid processing. Furthermore, with payment gateway integration not paper work will be held in government stock, no manual reconciliation, no daily cash processing, no shortage payment, and no access payment in account. The payment gateways permit government to grow in term of electronic service provider (Gulati, 2009).

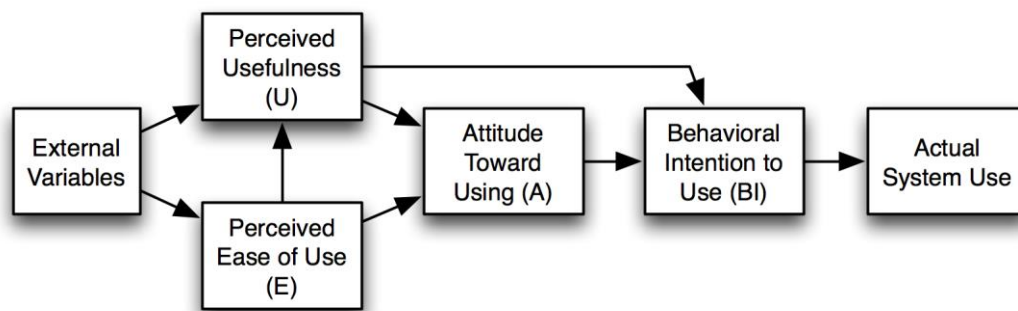


Figure 4: Technology Acceptance Model

The above model shows the importance of using technology and how the workflow should be designed by the organization to accept the new technology instead of using the traditional method in providing services. Technology acceptance model have different variables external and internal variables. The change knowledge should be present in the organization to enhance the services through utilizing technology.

Global Payment Gateway

Utilizing online data will enhance the efficiency of productivity in the organization. The online service can be connected to multi channels together, and provide the service to beneficiary without any delay. This will improve the customer value experiences in term of integration complete, and flexible service can be offered for different originations under one electronica station. This will provide a better quality of services, faster services, and one dashboard to beneficiary. The single dashboard will give accurate, real time transaction information from anywhere, and in anytime. The process will be automated between multi organizations and offered to single customer.

The online services which offered to customer required to do payment. The payment page needs to integrate with the one portal station to ensure the payment cycle completed without any challenge to merchant or cardholder. Furthermore, the payment cycle should be secure in term of transaction workflow, and conclude settlement phase. Through the payment gateway utilizing need to add more feature like, virtual terminal, customer database, chargeback prevention, fraud prevention, recurring billing, and affiliate management. Those features should be providing from the provider of payment gateway to merchant, this will ensure the secure of the payment gateway using, and convenience the customer to complete the payment without any frequency.

The payment gateway is using to facilities the ecommerce transaction; prevent fraud, and enhancement risk management. The online transaction with fully integrated system will increase the efficiency of the productively. The customer will be able to place order with the suitable time for them.

The Timeline of Ecommerce

- 1979, an English investor comes up with the concept of long-distance shopping to videotext, credited with developing the predecessor to online shopping. Simultaneously, US have the same service called the source and CompuServe (Yang, 2017).
- 1982, In France they have used the online shopping by France telecom and use for multi services such as online shopping, stock inquiry, search phone directory, and other services which are serve the customer. The UK has launched the same services but, was not successfully as France (Yang, 2017).
- 1990, the first web browser has written by Tim Berners Lee, using the next computer.
- 1992, publishing new book name future store written by J.H Snider and Terra Ziporyn, its gives the indicator how the new technology will amend the future shopping method for customer and merchant (Yang, 2017).
- 1994, release the Netscape browser and later introduce secure sockets layer (SSL) to protect the technology from any fraud and incident (Yang, 2017).
- 1995, Launches Amzon.com and establishes for public for shopping online. It was the first 24 hours broadcast and services/products provider to customer. Also, started the non-commercial radio station, radio of Hong Kong and Net Radio. Multi different company has started used internet like; Deli, Coisco, and others to sale the products/services for customer (Yang, 2017).
- 2002, PayPal has started online payment in cooperation with eBay as acquired for 1.5 billion dollars. A different store has used online service like CSN stores, Nets hope and other online stores are found as online products sealer. They have given attention to sell certain product to customer through online (Yang, 2017).
- 2015, the ecommerce inclines to development the economy. As Amzon.com has released the selling products which almost 500 million dollars. That is more than the 50% of the all e commerce growth (Yang, 2017).

E-Commerce in Chine

Through past of twenty years, in Chin the ecommerce business has expending affectedly, especially when Alibaba group, Taobao, Jindong, and other business to customer e commerce were established. In Chin the transaction volume was 2.16 billion RMB in 2016, this is according to the Chine Internet network information. The buyers in Chine have reached above

460 million through online and pay the charges through payment gateway with fully convince and the number increase year by year. The number of online users has reached 475 million and increasing of 14% in 2016. In 2017, user using mobile payment increases suddenly more compared to 2016. The number of users has reached to 469 million in 2017, where gives the indicator number of users has increase and prefer utilizing mobile payment instead of traditional method for shopping online, this figure has come from (Chine ecommerce report 2016, May, cited 28 Sep 2017) (Yang, 2017).

The Gulf Cooperation Council (GCC) Countries Payment Gateway

Although the strong fundamentals of GCC countries is one of the most world's challenging ecommerce playgrounds. With highest level of Gross Domestic Product (GDP) per capital, the GCC is home of many people with largest disposable revenue. There is high potential to implement the technology and see the acceptance or not. According to the GCC statistics, average count of mobile penetration stands at more than 170%, and smart phone penetration is at more than 65%. Moreover, more than two-thirds of population utilizing internet, with diffusion Qatar, and the United Arab Emirates (UAE) beyond 90% this included both internet accesses fixed and mobile. The GCC ecommerce market is very small competed in global market. The estimated of market size \$5.3 billion in 2015, where the ecommerce business contribution only about 0.4% based on the region GDP. The infinitesimal amount compared with more established, developed markets that have similar level of GDP per capital and internet penetration (Kearney, 2016).

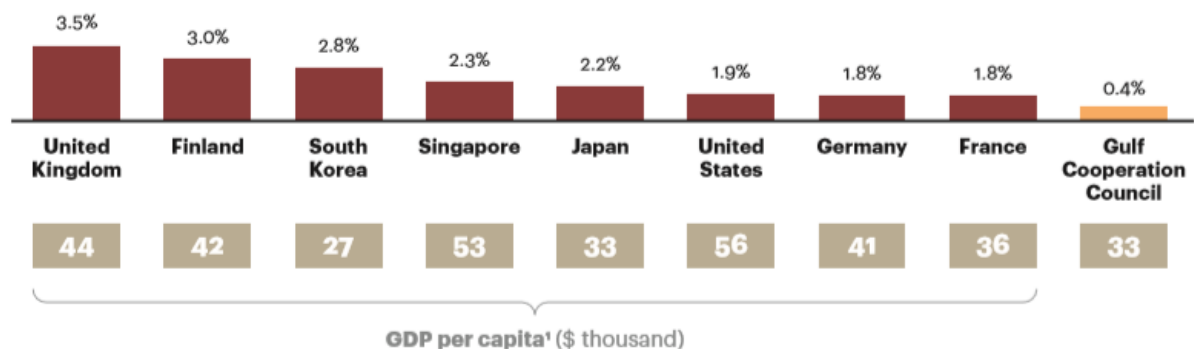


Figure 5 : Ecommerce DDP per Capital (Kearney, 2016).

Several problems are avoiding GCC market to reaching the fully potential of including consumer trust, and awareness concerns. The GCC is weakness in the payments, distribution, and logistics infrastructure, and developing government policies. The consumer remains to make payment in cash for unbalanced count. Based on the statistics the highest payment is complemented by cash instead of using the development technology. The percentage is showed the indicator that, GCC very weakness in development payment method, where 67% of all payment charges are cash in Saudi Arabia and 58% in the UAE. This highest used of cash because of limited alternatives, low consumer satisfactions with availability of payment methods. The primary market research custom-built, where more than 50% of the Saudi Arabia consumers are dissatisfied with bank payment solution provided in the market such as card payment, mobile apps, point of sales machine, and payment gateway. Furthermore, more than 50% of consumer expressed dissatisfaction with cash as payment method, as it's not served those needs for long term (Kearney, 2016).

Furthermore, the main concern for consumer is the data security and prevents fraud compound customer trust issues. Based on the Norton research, around 40% of mobile shoppers have been sufferers of cybercrime in the Middle East and North Africa. Also, 71% roughly they observed cyber-attacks in the region. Simultaneously, ecommerce awareness is very low with user who are using internet, in the UAE even low aware about ecommerce platforms. The limited offering, in term of both extensiveness and seriousness, long with local merchants' weak motivations and advertising offers have resulted in this lack of awareness. Meanwhile, customers fancy international online platforms, which offer more choices and easier shopping, where the GCC is have more potential in online platform but, not utilized as required (Kearney, 2016).

GCC e-commerce Market Share, & Rapid Growth

The GCC market is very aggressive and significant for the investor to invest and gain higher income. The investor should think differently to assured that customer satisfy with the services/product offered to them in the platform instead of traditional techniques. With the despite large disposable incomes and strong telecom penetration, e commerce contributes just 0.4% of GCC GDP. There is high potential of opportunity to increase the size of growth. Through the research done in GCC market which has discovered that 34% of merchants have e commerce channel to advertisement products/services for customer with compered with United States marked 58%. By 2020 the GCC e commerce market could almost expand to reach \$20 billion. With 30% of CAGR, e commerce is expected to overtake around 9% of the traditional retails CAGR in the same period. There are many factors will influence this to drive through the growth, includes excessive customer/merchants' awareness of utilizing e commerce. The accurate solution for higher online business conversions and more retailers offering will be through ecommerce by end 2020 (Kearney, 2016).

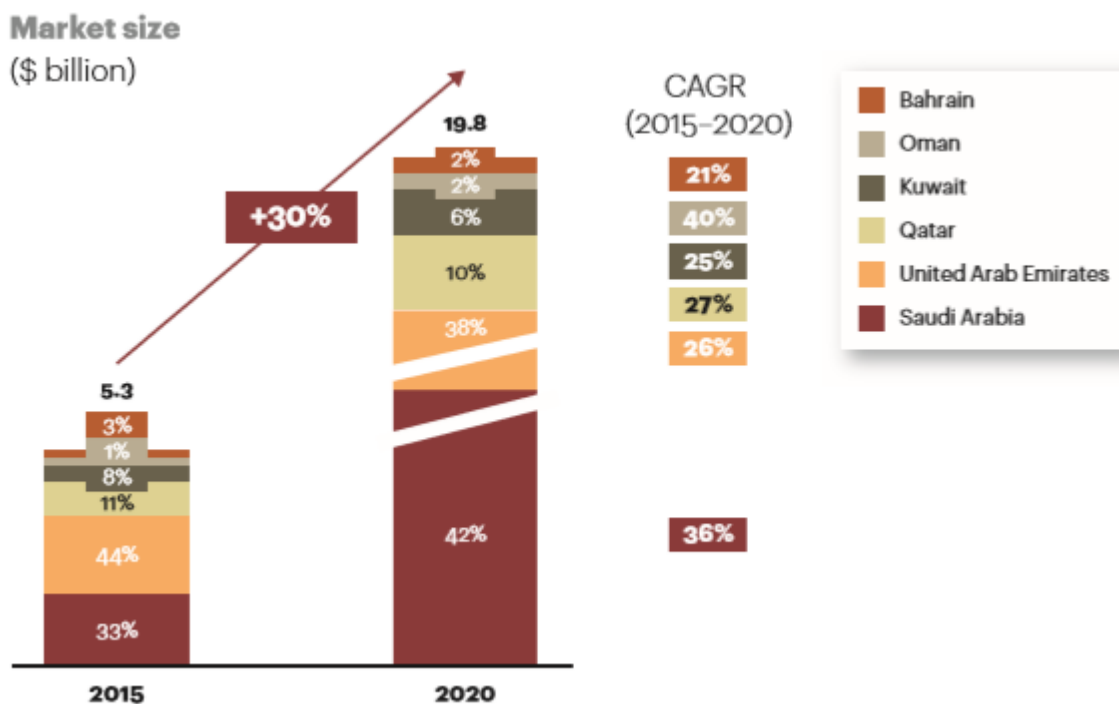


Figure 6 : GCC e-commerce market (Kearney, 2016).

The GCC market will be one of the targeted e-commerce markets to convert the traditional retailers to electronic which will able to serve the customer and merchants simultaneously,

provide the customer efficient services, and increase merchant's income with low cost. The GCC have very significant potentials for online shopping market with high ecommerce to retailers. The merchant is need to integrated website/mobile app with payment gateway to provide the customer with the possibility to buy and pay the fee within same page without any additional effort (Kearney, 2016).

For GCC retailer's to be success of Omnichannel strategies will depend mostly on their capability to enhance strong online presence, which provide full-bodied payment mechanism, and invest in distribution and infrastructure. Furthermore, merchant need to cooperate with governments to resolve the barriers in policies that will continue critical to the ongoing success of a cross border e-commerce ecosystem (Kearney, 2016).

Sultanate of Oman Payment Gateway

Currently, there are few and limited of government entities utilizing ecommerce to offer the services to citizens and residences through website/mobile app. The highest percentage of government entities is still not moving to ecommerce, because of the reservation and not keeps up with initiative chances. The government is promoting to move digital instead of using traditional method to serve the citizens and residences. Oman government is looking for digital society and e government services by establishment Information Technology Authority (ITA). Most of the services can be support through ecommerce as it's offering to citizens and residences to license and business potential like tenders. The most popular services governments bid it to citizens and residences are business registration, customer clearance of imported and exported goods, payment of utility bills, payment of traffic fines, payment for licenses required based on the natural of business, and etc. (export.gov, 2018). In 2008, Oman government has decreed legislation governing ecommerce and IT officially have recently identified opportunities for payment integration and provide the integration in both language Arabic and English. The integration should be secure and ensure the investors. ITA role will be treatment and specialized in business to business services for all government entities. And enhancement, encouragement the government entities to utilizing payments gateway instead of the traditional services offer to the beneficiaries (export.gov, 2018).

While Oman government entities are moving to ecommerce transaction will add huge vale to the organization and beneficiaries as well. However, there are some government entities has already utilized payment gateway successfully without any challenges. And the beneficiaries able to completed the transaction from anywhere in anytime without any complicated in procedure, and payment method (export.gov, 2018).

The best example about government payment gateway integration in Sultanate of Oman is Royal Oman Police (ROP). It's the first government entity has started with payment collection solution instead of cash. The beginning was with using Point of Sales (POS) machine instead of collecting cash from citizens and residences that are looking for the services from ROP. Then the services have extended to website/portal where ROP offer certain services to citizens and residences through website and pay the required fees. ROP is able to reconcile the account in daily basis without any delay of shortage. The finance department can reconcile all regions account around 390 merchant ID's in daily basis without any complicated. There is less potential of mistake compared with cash collection. Currently, ROP manage most of the service through website/portal/mobile app. Also, it's the faster government entities to offer the services for citizens and residences without any complicated. Most of the major services have integrated with payment gateway and online services (Masrori, 2019).

Comparison between Physical and Online Store

The coming future for retail is working with both physical and online store, where given the customer option to purchase the products/services required through those options. Some customers are preferring the physical store more than online, and other hand there are some customer who prefer the online store more than the physical because they don't have sufficient time to visit the physical store to obtain the required products.

The setup of ecommerce goes success well beyond the online portal/website/mobile app. A fundamental foundation needs to contain on several critical elements. The consumer is one of the significant factors which more likely to hug omnichannel with a unified customer experience across all physical and online channels. Its consistency path from physical to online store and customer commitments are animated to attracting and retaining customer behavior. There are some advantages of traditional retailers to customer and seller. In developed market, retailers have capitalized on using fluctuating approaches to encourage customers to achieve the preferred customer experiences. Refer to picture no which is showed the level of customer preference in utilizing online shopping instead of traditional market and gives the valid compression.

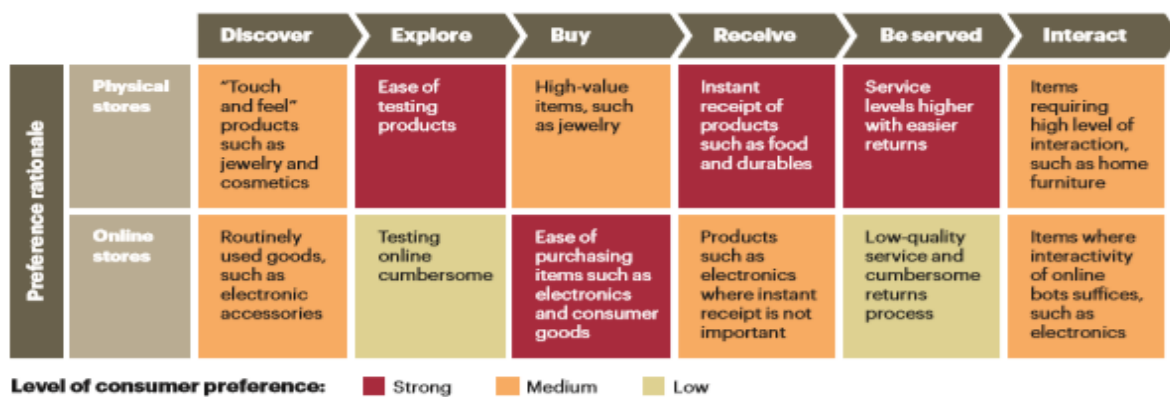


Figure 7: Comparison between physical & Online Store

The second value is investment of technology to support strong online shopping by using payment gateway to give customer the chance to pay the charges without any complicated and the seller will deliver the product later on to customer wherever they need. To investing in the technology, improve customer experience to move online shopping instead of traditional market. This development gives the value potential in e-tail through website/mobile app/ tablet/ and other devices. Those channels will give to customer snap of the shop by digital, that look and function like actual store or more innovative concepts.

Significance of the study

The significant of this research government entity in Sultanate of Oman are not integrated with payment gateway and not gain the benefit out of the integration in term of reconciliation, offer services online, enhance beneficiaries' satisfaction and experiences. Furthermore, empowered government sectors is utilizing payment gateway for collecting the fee without any complicated method.

Problem Statement

Currently, the major Government sector organization not empowered to provide flexible services to citizen and residences by utilizing the latest technology of payment gateway, and

enhance work quality.

Research Objectives

There are couples of significant objectives for this paper which are:

- Evaluation government procedure without utilizing e-commerce features.
- Describe how widely, and empower e-commerce is used in government sector.

Research Questions

Why not all government sectors moved to e-commerce?

- What is stopping government sector to moving e-commerce?
- What is the challenge that government sector faced to support e-commerce?
- How the performances of government organizations which are supported e-commerce?
- How e-commerce will help government sector in term of empower, and widely?
- Where will be the country after integrated all government sector in e-commerce?

Result, discussion, and Finding of the study

Through this paper the qualitative method has presented as it majors the existing experience of government entities whom implement the service for beneficiaries and compared between the service before and after implement payment gateway and how improve the efficiency and present the innovation in the country. The best an example from government entities that implement the payment gateway and provide the best services for beneficiaries are Royal Oman Police (ROP), and Ministry of Manpower (MOMP). Those two entities are working hardly to provide the best services and enhance the quality of transaction which is offered to beneficiaries. The result of the interview is as follows:

Royal Oman Police (ROP)

During ROP interview they have stated that all Oman government entities need to think how to move forward as the current situation not acceptable at all from other government entities and the beneficiaries. Furthermore, people expectation more day by day in term of using technology as solution for the services and enhancing the client experiences. Also, the model which is government entities applies it in the market in the basis for other sector in the country. Most of industries follow the concept which governments run behind it. As well, the banking sector is enhancement beyond other sectors and government sector should gain these benefits instead of waiting other sector to involve or approach them for using technology. Also, they have to run fast instead of waiting clients complain (Masrori, 2019). According to ROP statistics when they have started in 2005 with the innovation of electronic payment instead of cash most of people were upset and not accepted. While today people are demanding from ROP to realize any new initiative payment facilities which keep with the lifestyle fast for the new generation. Currently, ROP is one of the best government organization in GCC in term of providing service and processing the beneficiary's transactions. There are some service is not taking for five minutes to completed, where the same service was taking days for finished. ROP has started collecting the cash through POS machine then when customer keep up using this service then they have enhanced to payment gateway through ROP portal in 2007 for one service only which traffic service. Then ROP has come out with mobile application service which offered most of the service which client looking for it. But, there is life cycle for ROP with collecting payment like as follows:

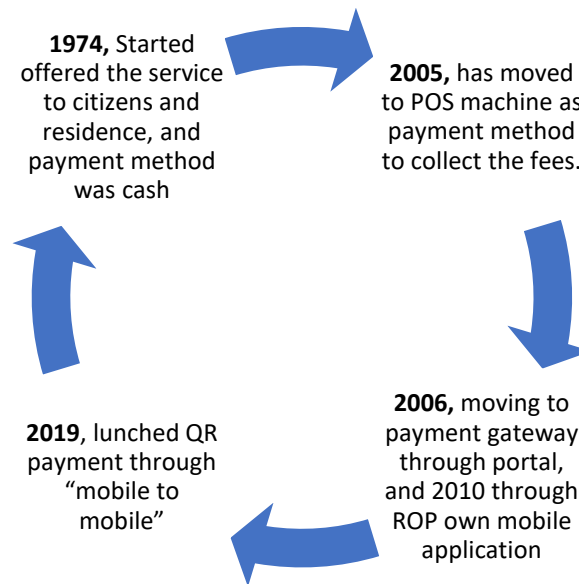


Figure 8: ROP Collection payment method life cycle

Count of transactions which ROP processed in daily basis around 3,000,000 transactions through different channels but, no cash in ROP outlets or channels accepting. Once it comes to fee collection each traction is different this is depending on type of services the beneficiaries have requested. ROP is not in depending on one sources or payment as provider. ROP is communicating with almost with all local banking located in Sultanate of Oman to use the facilities which banks able to offered to ROP and fit with ROP needs in term of payments and other services (Masrori, 2019).

Currently, ROP is utilizing several of payment methods such as, POS machine, payment through portal, payment through mobile application, kiosk "self-services" machine, banks ATM's, banks CDM's, QR Code, and other utility partners mobile applications. Additionally, ROP is looking to extending more and more in term of outlets to provide the easier, and flexible services to beneficiaries. How is ROP seeing payment gateway going on in Oman through government sector? Oman is one of the countries that have big potential in e-commerce area. From ROP perspective payment gateway is the suitable payment solution which all sectors need to go through, as most of the local banks now able to provide payment gateway either local payment gateway or international. The integration is easy to implement with any tools the merchant has and its supporting with all type of platforms. Also, the banks have educated team who are aware about the payment gateway as it required for more support compared with POS machine, kiosk self-service machine. Oman is development country and looking for the technology which running around to obtain the benefits, reused based on the country needs, and required. Even the organization which will integrate them system with payment gateway they will see the different in term of services provided, collecting fees, making settlement, reconciliation account and other benefits (Masrori, 2019).

What type of services ROP offered through website/ mobile application which beneficiaries no need to visit ROP outlets overall Oman? Most of the service ROP is provided to citizens and residence can apply through website as some of the service still not moved to mobile application because of the documents required to upload. You can see, Custom, Traffic Services, driving license, local Visa, and International Visa available through website, while mobile application has mostly traffic service, and Visa for local and international. Although,

development of e commerce transaction in ROP was great in rent year, there are some challenges either from provider banks, ROP system, and customer use awareness. And most of those challenges has sort out within short time. The challenges can be operation, technical, and financial. We believed that, integration with payment gateway for success e commerce market is the future (Masrori, 2019).

Currently, ROP is no more recommending to utilize POS machine. The lifestyle is looking for the faster and easier technique to be beyond the people expectation in term of service quality. From the service provider perspective as easier as possible to offer the service for beneficiaries that will be gratefully and keep up with the technology used. For time been most of ROP services provided through platform which is integrated with payment gateway to give the beneficiaries the flexibility of obtain the service from anywhere and in any time based on them convenience. According to the latest statistics the highest transactions are processed through website and mobile application with help of payment gateway integration and converted those transactions as ecommerce transactions. The major statistics are as follows:

Table 1: ROP Service Type with Major Statistics

Department	Collection Charges Method				Heavily Used Method
	Cash	POS	Website	Mobile App	
Custom	0%	7%	93%	0%	Portal
Traffic Services	0%	30%	30%	40%	Mobile App
Driving License	5%	95%	0%	0%	POS
Residence Visa	0%	50%	50%	0%	POS / Website
International Visa	0%	20%	80%	0%	Website
Civil Status	0%	100%	0%	0%	POS
Civil Defense	10%	90%	0%	0%	POS
Hospital	0%	100%	0%	0%	POS
Auction	5%	95%	0%	0%	POS
Explosives	60%	30%	10%	0%	Cash
Security & Safety	60%	30%	10%	0%	Cash
Other Services	None	None	None	None	None

The main services are providing for more of the citizens and residence has the easier method of payments. Also, the customers are preferred to use the digital payment method instead of the traditional method which is cash payment.

ROP is going fully digital payment and services provider, within coming years there will be no cash collection and traditional method of providing the service. The beneficiaries need to login either website or mobile app and any other channels coming in the market to apply for the services they are looking for it from ROP.

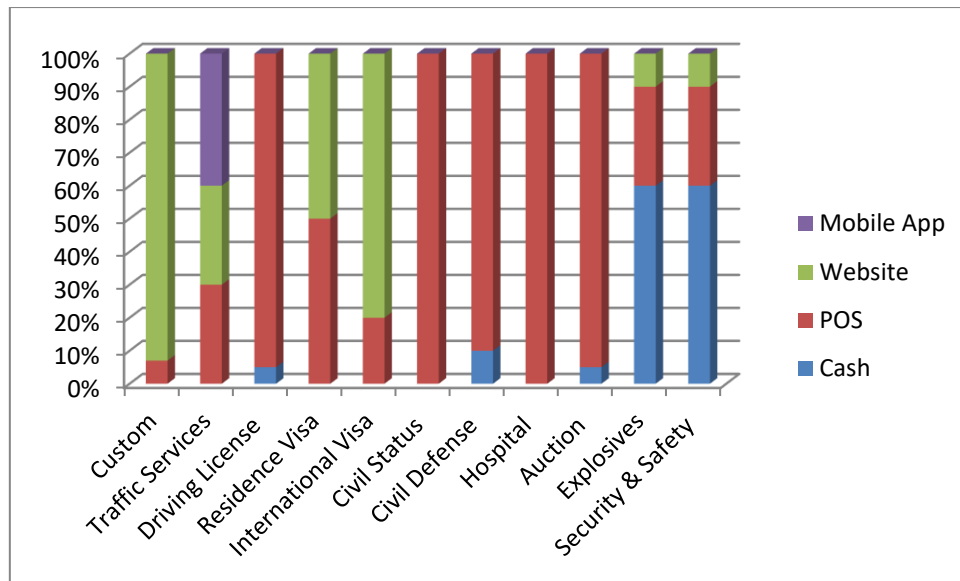


Figure 9: ROP Collection Charges Method

Ministry of Manpower (MOMP)

Through MOMP interview with the Head of Revenue, they have stated that government entities in the Sultanate taking long time to enhancing them services to digital instead of the traditional style. Moreover, there are some government entities which have moved forward to the digital world in term of service facilitator. Also, there is life cycle for payment while exchange from cash to digital. The lifecycle started with cash, cheque, card when transaction processing through POS machine, transaction processing through mobile App or website with help of payment gateway integration, then with table to serve the beneficiaries according to the level. Additionally, the Head of Revenue has mentioned that, integrated website and mobile App with payment gateway gives the citizens and residence flexibility to do the required transaction in any time and enhancing them experience with the Ministry services. Furthermore, the government entities need to utilize the services which banking sector have and help the government to improve the service offered to the beneficiaries (Mahrazi, 2019). MOMP has the payment life cycle while initiated with collecting cash and cheque in 2002. It has collected hug cash in daily basis with help of one of the local banks. The same bank has proposed POS machine instead of collecting cash during 2005 to 2014. They have started with payment gateway which has integrated with the ministry website in 2015 with the largest local bank. In 2018 mid-year they have stopped accepting transaction through POS machine and moved all transaction through payment gateway (Kalbani, 2019).



Figure 10: MOMP Collection payment method life cycle

While comparing the transaction process time between old days with the current payment method used by the ministry, there is a huge enhancement in terms of serving the beneficiaries. Previously, the beneficiaries must visit the ministry outlet to apply the request and pay the required fee either cash, Cheque, or card based on the latest technique the ministry has used in 2009. Currently, all of these troubles have moved out once the ministry integrated with payment gateway integration between ministry website and bank pages to allow the beneficiaries to pay the required fee with the easier and flexible way. Moreover, the count of the transaction which the ministry managed on a daily basis has increased compared to the old days. Enhancing the services provided to beneficiaries and the system which the ministry controls is highly creditable for them. The ministry has perfectly journeyed the electronic transformation which helps the beneficiaries to gain the service from the ministry with flexibility (Kalbani, 2019).

Currently, MOMP is using a payment gateway for collecting fees only; there are no other tools. The ministry is planning to reach the beneficiaries wherever there are without a restricted channel to provide the service. Also, the ministry plans to have kiosk self-serve machines in all the board around the country. Oman is one of the development countries and there are several potentials to use technology to enhance the services for the clients. The Ministry is working hard to customize the services through a mobile app to give the regular clients an easy method to do the transaction without any complicated procedure. Additionally, the Ministry of Manpower is working with multiple government entities to simplify the procedure (Kalbani, 2019).

Presently, MOMP offers most of the services through the Ministry's official website, a no-restricted process, and collecting fees through a payment gateway. Around 98% of the transactions apply through the website as the main resources for the clients instead of visiting the ministry outlets to ask for the services. The services which are offered through the website are;

commercial work permit, work permit issuance, work permit renewal, work permit transfer, cancellation of work permit, work permit amendment, and ect (MOMP, 2019).

According to the latest statistics the highest transactions are processed through website and mobile application with help of payment gateway integration and converted those transactions as ecommerce transactions. The major statistics are as follows:

Table 2: MOMP Service Type with Major Statistics

Service Type	Collection Charges Method				Heavily Used Method
	Cash	POS	Website	Mobile App	
Commercial Work Permit	0%	0%	100%	0%	Portal
Work Permit Issuance	0%	0%	100%	0%	Portal
Work Permit Renewal	0%	0%	100%	0%	Portal
Work Permit Transfer	0%	0%	100%	0%	Portal
Cancellation Permit Work	0%	0%	100%	0%	Portal
Work Permit Amendment	0%	0%	100%	0%	Portal
Other Services	None	None	None	None	None

All the services offered through website for the citizens and residence has the easier technique to make payments. While MOMP using fully payment gateway to offered the service with help of payment gateway to colleting the fee required to pay by the citizens and residence. MOMP is going fully digitization in term of services provider to the beneficiaries. With the coming solution will be easier for the beneficiaries to use MOMP channels.

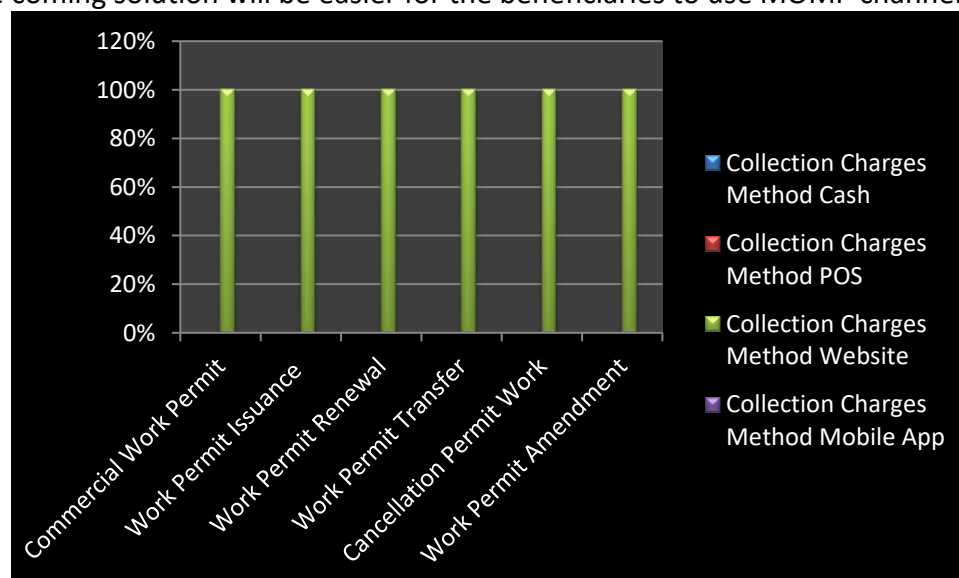


Figure 11: MOMP Collection Charges Method

Recommendations

- The government entities which are still not have official website / Mobile App to present them services for the clients they have to work hard and fast.
- The government entities which are having website but, not provided full service to beneficiaries they have to work hard, enhancement, and integrated with payment gateway.
- Payment Gateway is a tool which each government entities should be utilized to enhance the service provided to the beneficiaries.
- Government entities should have e commerce as one of the goal.
- All Government entities need to stop the traditional method of providing services and no paper work anymore in each organization.
- Ecosystem is the suitable method for all government entities.

Conclusion

Technology Acceptance Model (TAM) is one of the most standard theories that are utilized broadly to expound information technology system usage. Through several of studies has used the same model to validate the organization enhancement in term of using technology and understanding the needs. Also, assessment how come the model variables are guide the organization the do the modification through latest information technology or system available in the market. The TAM is helpful to the new or existing business required for utilizing the technology to meet the client's expectation and enhancing the business model. Through this study there are two major government entities has been studied Royal Oman Police, and Ministry of Manpower which they go thru different payment cycle started by cash until reached to use payment gateway. Those two entities were success in term of change collecting payment methods. The conclusion of this paper is government entities need to work quickly in term of enhancing offering services to the beneficiaries with using the latest payment method available in the market. Additionally, there is big potential for the government entities to be success by utilizing the ecosystem.

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