

OPEN DOORS:

*The importance of payment gateways
in contemporary businesses.*

by Bright Ewuru



INTRODUCTION

The words of James Comey, “technology has forever changed the world we live in”, have never been more relevant and valid than they are today. Technology is woven into the fiber of our daily lives. From commerce, education, and transportation to communication, leisure, and accommodation, technology is the pillar upon which life in contemporary times is held. What is more? The end of this era is nowhere in sight. Seizing whatever opportunities that technology presents in the various facets of life today definitely counts if one makes anything of progression.

*TECHNOLOGY
CAN BE OUR
BEST FRIEND...*

-STEVEN SPIELBERG

That being said, there is no gainsaying the fact that business, trade or commerce, whichever term best fits one’s understanding of the concept, is a core element of human existence. Money makes the world go round, they say. Investopedia defines business as the “organized efforts and activities of individuals to produce and sell goods and services for profit”. Obviously, the ultimate goal of all business ventures is to make a profit.

How easily can this profit be made? How swiftly can this gain accrue? The traditional business pattern features the exchange of goods and services for cash. Pledging of credit by customers every now and then is a regular business practice which usually fosters admirable merchant-customer relationship. The prevalent pitfall in this instance, however, is that customers might default in making timely payments. What then does this spawn? A disgruntled business owner, and a distorted business cash flow.

*COMMERCE NOWADAYS IS A
PROPER ALLOY OF TRADE AND
TECHNOLOGY.*

Truly, the mundane means of payment are fraught with hassle and disturbing procedures. Additionally, the market is only available to persons who share proximity with the business. Thus, prospective customers in other locations have no chance of patronizing the venture. Nothing is more disastrous to commerce than such a divide. Thankfully, however, the advent of technology in the world of trade has undone the shackles that previously crippled businesses. Enter payment gateways!

PAYMENT GATEWAYS

What are they?

Simply speaking, a payment gateway is an online parallel of point-of-sale terminals in brick-and-mortar outlets. It takes the money from



the customer and transfers it to the merchant's bank. Being an online infrastructure that supports payments for goods and services, it serves as a channel and front-end technology between an electronic commerce website and the financial institution that authorizes a customer's card payment. It basically reads and transfers information about payment cards to the business' acquiring bank for processing.

What are its features?

Accepting and authorizing online payment:

This is the major feature and function of payment gateways. They serve as virtual passages for the transfer of funds from the customer to the merchant, and also instantly notify the customer of the current status of the transaction. Without the approval of the payment, the transaction would come to a deadlock.

Encryption and storage of payment details:

As far as business goes, most details are confidential. Payment gateways preserve such privacy. Information entered therein for payment are initially encrypted before being transmitted to the bank for processing. Additionally, the encrypted information is securely stored. This saves the customer the stress of frequently re-entering their details.



Encryption is the process of using an algorithm to transform information to make it unreadable for unauthorized users.

-Techopedia

Virtual terminal:

This refers to a browser-based equivalent of the regular credit card terminal. A customer can input the details of his card therein for the transaction to be processed from the browser.

Recurring billing:

Given the fact that life in modern times is characterized by myriads of bills to pay, payment gateways are tailored to specifically meet such needs. Also, loyal customers of particular products and services are better off with subscriptions instead of one-off payments. The payment gateways can process the transactions using the details entered to renew the subscriptions as often as required.

Compliance with PCI-DSS:

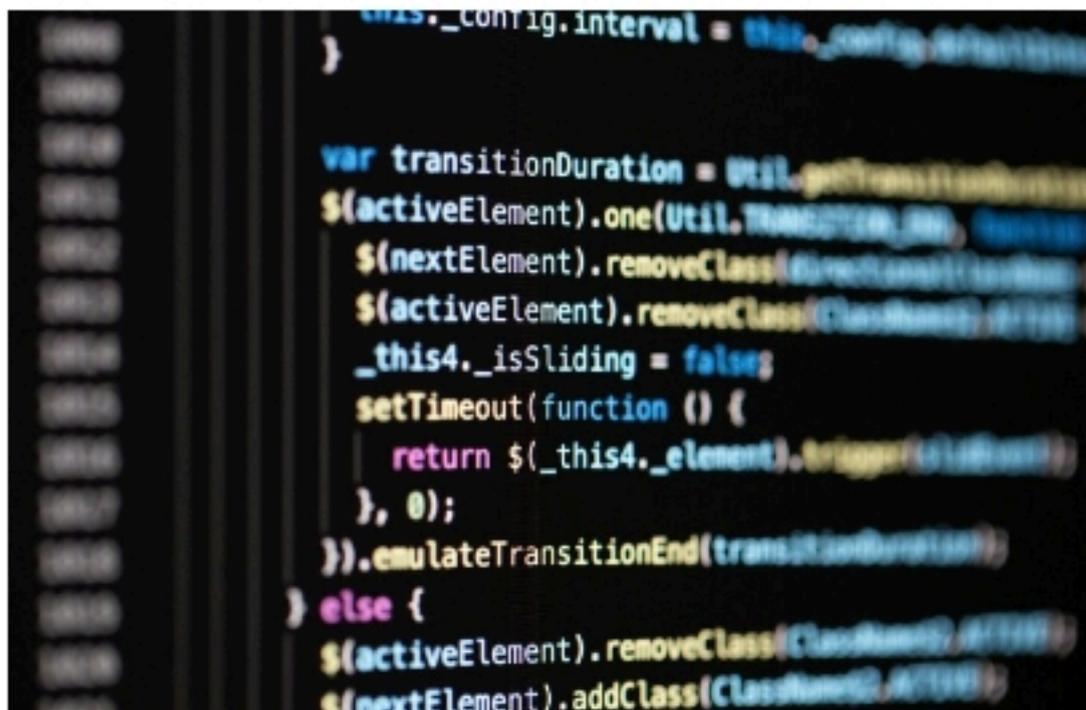


Another noteworthy characteristic of payment gateways is their amenability to the Payment Card Industry Data Security Standard. These regulations apply to payment gateways because the latter accept card payments, and also store, process, and transmit details of the cardholder.

Elements of PCI compliance include, amongst other things, the provision of a secure network to protect card

details; the creation and maintenance of a set of unique passwords instead of general passwords initially provided by a software vendor; the establishment of various security levels for the protection of stored details. The different phases of protection include encryption of details, authorization, authentication, passwords, restricted access and many more.

Application Programming Interface:



```
    this._config.interval = this._config.transitionDuration;
  }
  var transitionDuration = Util.getTransitionDuration(nextElement);
  $(activeElement).one(Util.TRANSITION_END, function () {
    $(nextElement).removeClass(clsActive + ' ' + clsSlide);
    $(activeElement).removeClass(clsActive);
    _this4._isSliding = false;
    setTimeout(function () {
      return $(nextElement).trigger(Util.TRANSITION_END);
    }, 0);
  }).emulateTransitionEnd(transitionDuration);
} else {
  $(activeElement).removeClass(clsActive);
  $(nextElement).addClass(clsActive);
}
```

This refers to a body of patterns and rules to be observed in creating software applications. A payment gateway is a textbook instance of a software application. Application programming interfaces feature on payment gateways, defining how components should interact and fostering the sharing of content and data between applications. Basically, they help in the execution of the function of online payment without any need for the customer to understand the underlying mechanism.

Fraud detection:



Payment gateways possess numerous tools for the scrutiny of transactions to determine whether or not there is an incident of fraud. Some of these tools are geolocation,

which indicates a device's location by utilizing the device's inbuilt GPS; blacklist look-ups; delivery address verification; computer fingerprinting technology which is used to know a device associated with fraud; identity morphing detection which is executed by observing the number of changes in data on current purchases and older purchases in order to perceive shady behavior; and basic address verification system checks to ascertain the address of the person claiming to own a card.

How does a payment gateway operate?

To wholly understand how a payment gateway works, it is necessary to keep in mind that five indispensable integers are in the picture. These are the customer, the merchant, the payment gateway, the merchant's acquiring bank/card association, and the issuing bank which is the customer's bank. The process is a sum of distinct and easily identifiable steps.

CUSTOMER



ONLINE
MERCHANT



PAYMENT
GATEWAY



ACQUIRING
BANK



Firstly, a customer places an order online. If the order is through a website, the customer's web browser functions as a virtual terminal and encrypts the customer's card data before transmitting it to the merchant's server.

The merchant then furthers the details of the transaction to their payment gateway.

The payment gateway then sends the transaction details to the payment processor which the merchant's acquiring bank uses.

The payment processor subsequently sends the transaction details to the Card association. The card association may provide a response of "approved" or "declined" to the payment gateway. The card association may, however, steer the transaction to the actual card issuing bank.

The authorization request then reaches the issuing bank, which verifies the available credit or debit and forwards a response in return to the processor with a response code, being "approved" or "denied". The response code communicates the fate of the authorization request and also defines the reason in case of failure of the transaction using terms such as "insufficient funds" or "bank link not available".

ISSUING BANK



ACQUIRING BANK



PAYMENT GATEWAY



ONLINE MERCHANT



CUSTOMER



Subsequently, the processor forwards the authorization response to the payment gateway.

The payment gateway then receives the response and forwards it to the payment processing interface where it is interpreted as a response and relayed back to the merchant and cardholder. This is termed authorization. Amazingly, all these steps outlined occur in nothing more than 5 seconds.

The merchant then ships the order in fulfillment of the transaction and this triggers the “clear” function which involves a repetition of the steps itemized above. Consequently, the issuing bank erases the authorization and sets out to settle with the merchant’s acquiring bank.

The merchant proceeds to present a daily set of all of the approved authorizations to its acquiring bank for settlement through its processor. This results in total clearance of the authorization.

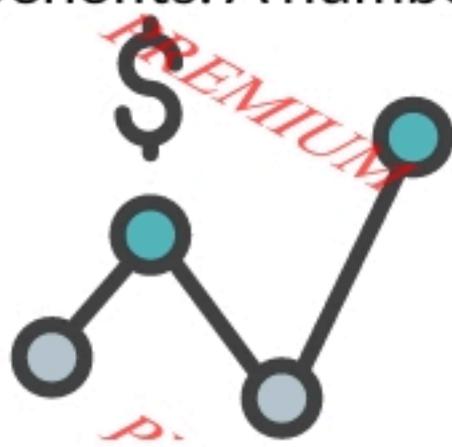
The acquiring bank then makes the settlement request of the card issuer.

The card issuer makes a settlement payment to the acquiring bank.

Finally, the acquiring bank proceeds to deposit the sum of the approved funds into the merchant’s nominated account. Normally, the entire process takes 3 days.

The importance of payment gateways in businesses today:

With transactions in modern times surging towards the online outlet at a staggering pace, payment gateways are absolute necessities for any merchant who hopes to take advantage of the stampede. According to the National Bureau of Statistics of China, online retail purchase summed up to \$1.33 trillion in 2018. This accounts for about 23.90% increase in such sales recorded in 2017. Additionally, a prompt report by the Internet Retailer reveals that online retail sales in the US exceeded \$517 billion in 2018; a 15% increase in the 2017 records. Numbers don't lie! E-commerce sports such an exponential growth chiefly because the central ingredient that is payment gateway bears a ton of benefits. A number of them are noted below.



ONLINE RETAIL SALES IN CHINA

\$1.33 Trillion

IN 2018.



Fluent incorporation:

All that is required to integrate a payment gateway into a business's software and workflow is registration for an account. This registration process is, much to the delight of business owners, smooth and devoid of burdensome paperwork. The business can have it up and running, ready to accept payments, in the blink of an eye.



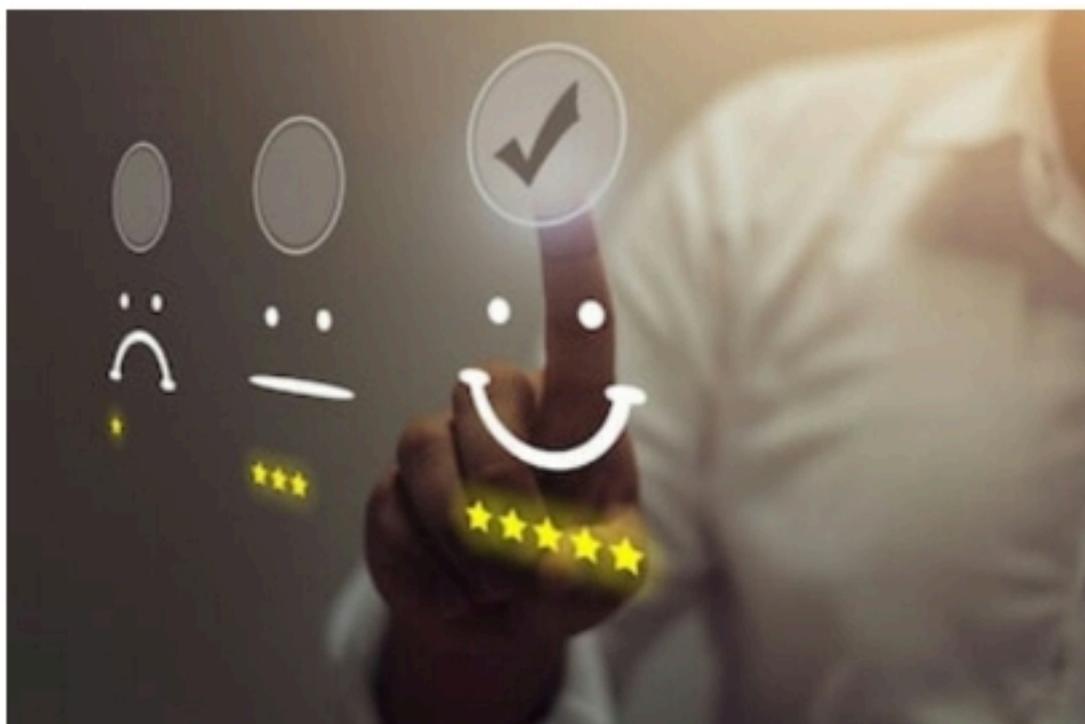
Budget-friendly:



The cost of incorporating a payment gateway into a company's website is next to nothing. Also, they offer minute transaction fees when compared with bank charges. In order to attract and retain more merchants, payment gateway providers create incentives such as discounts when the online merchant receives a remarkable number of payments through the payment gateway. This is a win-win situation for the business as costs are kept at the barest minimum even when the venture blooms.



Impressive customer experience and support:



In a world where we are all crumbling under task overload,

an opportunity to handle responsibilities from a position of comfort comes as a breath of fresh air. Physically making payments could be stressful sometimes, depending on one's schedule. Customers, therefore, naturally relish the prospect of concluding the transaction online. This is a mighty plus to any business that uses a payment gateway. The customers also need not be tech-savvy as the interface is user-friendly. Should the customer meet any hurdle of some sort while attempting to effect payment, there is round-the-clock technical support via multiple channels such as emails, phones, and live chat.



Sturdy security:

As surprising as it might sound, a major reason behind the growing popularity and use of payment gateways presently is the security it offers.

MORE THAN 80% OF CONSUMERS TRUST SITES WITH PAYMENT GATEWAY LOGOS

Studies reveal that more than 80% of consumers gain a greater sense of protection and confidence seeing logos of payment gateways on websites. Compliance with the Payment Card Industry Data Security Standards is mandatory for all payment gateways. Thus, sensitive details of customers are encrypted before transmission.

Additionally, payment gateways screen orders for any indications of fraud. The tools for fraud detection include geolocation, blacklist look-ups, computer fingerprinting technology and many more. This clearly whittles down the chances of customers falling prey to fraudsters.

▶▶ Speedy payments and clearing:

The bane of physical means of payment such as checks is that they are slow and need a number of days to be completed. Additionally, there is always the possibility of a check bounce as one can never be too sure of the customer's solvency. However, with payment gateways, there is no room for groping in uncertainty. In a fraction of a second, messages are sent and responses are received.

Transactions are authorized or denied depending on the sufficiency of funds in the customer's account, or any other relevant reason. True, the online transaction takes 2 or 3 days to be entirely settled, but the settlement is a certainty as long as the initial authorization was given. This way, businesses have an accurate measure of their cash flow and can appropriately map out their next lines of action. The transactions are automatically processed and documented, giving the business owner the latitude to focus entirely on improving his enterprise without spending time and effort on documentation.



Multiple payment methods and compatibility with several devices:

Payment gateways take commerce a step beyond the ordinary. Internet connection is a constant requirement. With that available, payment can be effected using a computer or a mobile phone.



40% OF CONSUMERS APPRECIATE MULTIPLE PAYMENT METHODS ON A WEBSITE

A survey shows that 40% of consumers prefer online merchants that offer multiple payment methods. This includes credit cards, debit cards, international cards, net banking, UPI, mobile money and mobile wallets. These payment methods are all supported simply by means of integration. This further implies that financial services are not restricted to persons who operate conventional bank accounts.



Customizability:

A remarkable benefit that payment gateways offer is their amenability to the trade pattern of the business owner. They offer flexible application program interfaces. The result is that the billing process can be contoured to serve the particular needs of the merchant.



This comes in especially handy if the merchant offers recurring payment schemes. Consequently, there will be no more need to worry about maintaining constant communication with banks. The merchant can simply concentrate on his business while the payment gateway handles payments.



Subscription management:

Payment gateways offer a recurring billing option which self-operates the subscription collecting process. This grants the merchant greater freedom to focus on building the business while the payment gateway utilizes the stored details of the customer to collect payments as needed.



Increased sales and income:

The availability of an instant payment option is a huge factor in increasing sales. This is because it weighs immensely on the mind of consumers, particularly impulse buyers.



After all, the ability to work on the customer's psychology is a handy tool in boosting sales. In the case of last-minute deals, payment gateways play the crucial role of helping the customers effect payment. The fact that the payment is online makes the online store constantly available and so payment can be made at whatever hour of the day. Noteworthy also is the fact that the merchant can place adverts for another product on his website and earn commissions for any purchase made through the site. That is additional income through affiliate marketing, made possible by the incorporation of a payment gateway.



Cross-border payments:



The integration of a payment gateway into a business platform largely trumps the biggest marketing campaign embarked upon by a business solely dependent on physical payments. Payment gateways bring the retail outlet to the customer's doorstep and thus enable payment from all ends of the world. Imagine trading on a global platform. Payment gateways bring such imaginations to reality through borderless and seamless movement of funds.



Multi-currency support:

The compatibility of payment gateways with various currencies eliminates all hurdles which might be posed by currency variation and the ever-fluctuating exchange rates.



The merchant executes this feat by collaborating with banks and financial institutions that provide processing facilities for various currencies. Customers can make purchases in their local currency with no scruples about currency difference or exchange rates.



Transaction reporting:



The entire operation of payment gateways is founded upon the passing of messages. From the moment an order is made, up to the authorization of the transaction, messages

and responses move to and fro. The customer is promptly notified as to whether or not the transaction is authorized, and if not, as to the reason for the denial. This keeps the customer informed at all times.



Commercial credibility and Competitive edge:



A hallmark of trade is competition, whether public or subtle. Every venture is eager to portray itself to customers as superior to and more customer-oriented than its competitors. Grabbing the opportunity that technology offers is a sure way to prove that a merchant keeps abreast of what is in vogue. Incorporating a payment gateway certainly marks a merchant as one who is worth his salt. It is highly indicative of the yearning to satisfy customers while simultaneously running the business with high efficiency.

CONCLUSION

In summary, just as the name suggests, payment gateways are open doors to innumerable possibilities for any business. They make real the concept of trading on a global scale and clear all hurdles that might serve to slow down a business venture. With the internet spinning daily into a universally accessible electronic marketplace, a business venture without a payment gateway is steadily diminishing to nothing. If you run a business, whether you sell products or services, do yourself a world of good by incorporating a payment gateway into your platform today.

About the Author

Bright Ewuru is a freelance writer for hire. He is a professional B2B copywriter and content writer. He is adept at researching and writing compelling and engaging content on a variety of subjects. Technology, real estate, business, and law, however, happen to be his preferred niches.

About the Company

Uvune Technology Limited is a body of visionaries who are wholly given to the task of refining the world of transactions. Our prime desire is to help people all over the world enjoy the benefits of unfettered money movement in their daily business activities. Being driven by this goal, we present Uvune; a payment solution that is nothing short of a smooth blend of convenience, speed, and security to all and sundry.



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