

Government Initiative to Promote Cashless Transaction through Innovative Payment Solutions to Provide Ease and Safety to Pay Online

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ABSTRACT

The Motive of the research being done for this paper is to increase the importance of the cashless transaction, and it should be adopted by Merchants, Riders, and Customers to make payments at different phases come during Online shopping, which starts from Booking of the order and ends at order received at location. The reason for promoting the cashless transaction through this paper is to firstly provide ease and alternative of making the payment. Then secondly, to digitize and automate the way of making payments. Finally, through digitizing of payments made, the government can able to regulate better each transaction and money transfer, which helps in minimizing the size of the undocumented economy because it mainly runs on paper cash

INTRODUCTION

In this ever-changing world, so many things have been transformed and changed the way things were done previously. We have seen many items and ways of working becoming obsolete with time after introducing new technologies. Initially, it does not look like any technology could become so easily replaceable due to usage and penetration. In the end, we have seen so many examples that it is inevitable and shown us that every technology or way of work done currently will not remain forever. It has to be replaced at any moment. So, one of the changes and transformations we have seen recently was replacing paper-based work with a completely digital operation. In the past, we have seen how much paper was played its importance in day-to-day work for every field of work, whether it is a private sector or public sector, finance department or human resources department, from utility bills to restaurant bills; in short, everything was depended on the paper. But now, with the advancement of technology slowly, there is a change in the dynamics, and the trend started to digitize every other process previously done and managed through paper has now been transferred to digital systems. This transformation made people's and organizations' lives very easy because paper handling, managing, and analyzing the data was very complex and challenging. It created so much load work and lots of time spent structuring and storing data in paper format. Still, now with the digital solution, we are able to manage the data very quickly in the computer system and remove so much extra workload and save lots of time for the people.

All these benefits made people and organizations more effective and efficient in achieving their goals and result in a simple way without too much effort. Another advantage of the digital system that promotes paperless working, which is going to be a focus on in our article, is the Cash transactions been done previously and how digital solutions are also revolutionizing the paper cash transaction, especially in the Ecommerce logistics sector, so in logistics sector when customer or consignee goes to any online ecommerce website to find the product of his choice and after finding the correct product the customer orders it online in the website at that time customer has the option to pay online for the product he wanted to buy through Credit or debit card, etc., some customer pay online at the time which makes flow very easy that customer will receive the order from the rider when he arrives at its location. But some customers don't want to pay at the time of order booking, so the booked order gets packed and fulfilled. Also, the customer can pay online instead of waiting to receive the order and then pay. After the order gets ready, either Ecommerce companies do the logistics operation by themselves, or sometimes they outsource to third-party logistics companies whose responsibility is to hire delivery riders and give them the orders. The rider will then deliver the order to the customer's location. Either way, until the customer reaches the customer location, the customer still has the option to pay for the ordered item online; some of the customers utilize it, but still, many customers wait to receive the order and then pay for it through paper cash. With the handling of paper cash, there is so many issues exist because of like cash safety in terms of saving them from getting a steal or snatched en route from riders; with paper cash, the problem of the intractability of transactions

causing irregularities and undocumented economic growth and finally, with the COVID-19 situation from past few years it becomes so essential to have a contactless transaction. We know that with paper cash, the virus can be transferred. With all these points in consideration, we aim to make a government initiative to promote and motivate Customer and Ecommerce sites to more and more introduce interactive ways to do online transactions and demotivate paper cash transactions. To do it, we will research and find the gaps in the current process from order booking to order getting physically delivered and finding the ways through at any stage until the customer receives the product. There is a possibility and option to convert the cash transaction to online and avoid receiving paper cash. For that purpose, we have found many exciting opportunities to make it possible, which we will discuss in this article.

LITERATURE REVIEW

Ecommerce Shopping

The trading of goods and services through the Internet is known as e-commerce. Your busy city center or physical store is being converted into zeroes and ones on the information superhighway. Around the world, 2.14 billion people are expected to make online purchases this year, and there are more than 150 million Prime members who shop at Amazon locations. Ecommerce is one of the numerous ways that consumers buy and sell goods in the retail industry (Creazza et al., C. (2023)). Some businesses simply sell things online, but for many, e-commerce serves as a conduit of distribution as part of a larger business plan that also includes physical stores and other revenue sources. In either case, e-commerce enables startups, established enterprises, and multinational corporations to sell their goods globally. An e-commerce website serves as your online storefront. It makes the deal between a buyer and a seller easier. Your products are shown there while your online clients make their selections in a virtual environment. The product racks, salespeople, and cashiers of your online commerce channel are represented by your website. Businesses may develop their own e-commerce website on a dedicated domain, create a branded store experience on a website like Amazon, or do it all for a multi-channel strategy (Gao et al., B. J. (2016))

Online Payment System

An online payment system is a business or service that helps make a financial transaction to another person or business using a computer, smartphone, or tablet. In order to help you transfer money from your bank account or credit card to another individual, the majority of online payment systems obtain your banking information. Small internet transactions often take a few seconds to complete (Cao et al., G. (2022)). However, verifying and finishing some of the more significant or more complicated transactions can take a day or more. Online currency exchange is referred to as "making payments online." In exchange for goods or services, these payments often involve the transfer of money from a customer's bank account, debit card account, or credit card account to the seller's bank account. These payments may originate from a customer's credit card or checking account directly or from an online payment

platform that is connected to the bank accounts of both the buyer and the seller. Both the purchasers of products and services, as well as the providers of those goods and services, use online payments. Particularly between the two parties, several procedures involved in the transfer and receipt of funds frequently call for various kinds of software to successfully complete the transaction (Luong et al., Y. T. H. (2022).

Blockchain and Smart Contract

A sophisticated blockchain technology database system enables transparent information sharing inside a company network. Data is kept in blocks that are connected together in a chain and stored in a blockchain database (Alarefi, M. (2023). Due to the inability to delete or amend the chain without network consensus, the data remains chronologically consistent. In order to manage orders, payments, accounts, and other transactions, you can utilize blockchain technology to establish an unchangeable or immutable ledger. A common picture of these transactions is made consistent by the system's built-in features, which also stop illegitimate transaction submissions (Bao et al., X. (2023). Smart contracts are blockchain-based algorithms that execute when specific criteria are met. They are often used to automate the implementation of an agreement so that all parties can be sure of the conclusion immediately without the need for an intermediary or additional delay. They can also automate a workflow such that when circumstances are met, the following action is executed (Khalid et al., D. (2023). Simple "if/when...then" phrases that are typed into code and placed on a blockchain are how smart contracts operate. When predefined circumstances have been verified to have been met, a network of computers will carry out the actions. These can entail paying out money to the right people, registering a car, sending out notices, or writing a ticket. When the transaction is finished, the blockchain is then updated. As a result, the transaction cannot be modified, and only parties to whom permission has been granted can view the outcome (Galimullin et al., T. (2023)

Cryptocurrency

Digital or virtual currency supported by cryptography technologies is known as cryptocurrencies. Without the aid of outside intermediaries, they make it possible to make safe online payments. The term "crypto" refers to the numerous cryptographic methods, such as hashing, public-private key pairings, and elliptical curve encryption, that protect these entries (Divakaruni et al., P. (2023)) It is possible to mine cryptocurrencies or buy them via exchanges. Not all online stores let customers use bitcoins to make transactions. In reality, hardly any retail transactions are conducted using cryptocurrencies, even well-known ones like Bitcoin. However, the exponential growth in the value of cryptocurrencies has increased their acceptance as trade commodities. They are utilized for cross-border transactions to a limited extent (Okorie et al., B. (2023).

POS Device

All transactions were carried out manually in the past, and cash was used for all payments. However, with the advancement of technology and the emergence of several new payment ways, every retail establishment today requires a system and device to collect payments via any standard method and keep track of sales (Kozlov et al., D. (2020)). This is where the POS system comes into play. A POS system consists of both software and hardware to assist merchants in creating invoices, collecting payments, documenting transactions, and managing inventory. The input and output devices that allow the POS software to function at the point of sale are collectively called POS hardware. In offline establishments, the POS system's hardware is just as crucial as its software (Nel et al., A. (2017)).

Cash Deposit Machine

You can make deposits and payment transactions using cash at the Cash Deposit Machine (CDM), a self-service terminal. Surprised? If you want to pay or deposit money into your account, you can avoid long lines at your bank by going to the closest ATM (Pradeep et al., N. (2018)). However, CDMs are also inside your bank and accessible during regular banking business hours. With the use of these devices, you can avoid standing in long lines where a teller would typically help you deposit your money. It is simple to operate a cash deposit machine. Your bank account number or debit card number is all you need. While other Cash Deposit Machines need you to manually enter your bank account number, some let you swipe your debit card to complete a transaction (Mohamad et al., N. (2017)).

METHODOLOGY

This study employed a qualitative analytical method to look at the current practices used in the logistics and e-commerce industries in order to examine strategies and initiatives created for the promotion of novel payment solutions in online purchasing. Using the aforementioned method, textual information can be understood and interpreted. We were analyzing the data and materials after going through the initial rounds of the procedure. In order to analyze, we used a few methods for searching and comprehending the information's pattern. Through analysis, we specifically focused on strategy formulation.

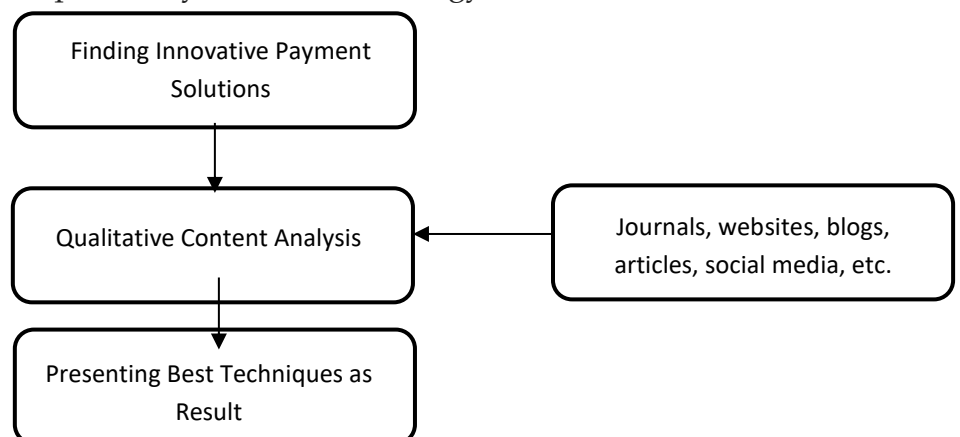


Figure 1. Evaluation of the Strategy-Creating Framework

The information acquired was processed using the NVivo 12 Plus program to discover the significant theme that ran throughout all of the materials examined for this paper, and it was then presented in depth, as shown in the findings. NVivo 12 Plus is used for data organizing, analysis, and visualization. Using Nvivo 12 Plus, the data was classified as follows: (1) uploading research data to the Nvivo 12 Plus work screen; (2) categorizing research data (3) assembling variables and indicators for the research in line with the research concept employed; (4) classifying data from analysis into gathered variables and indicators; and (5) rereading and reinterpreting the coded data to ensure its accuracy.

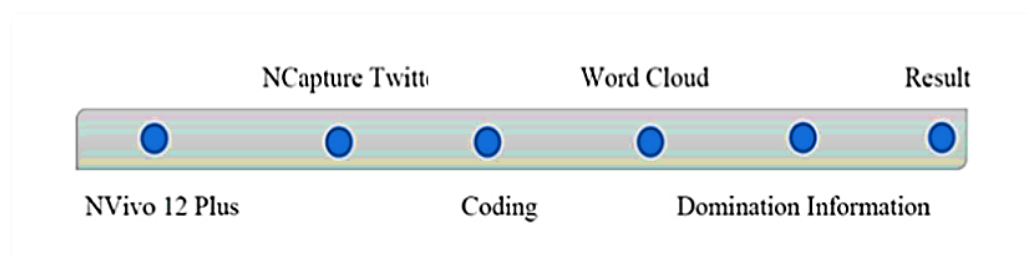


Figure 2. Explains the Nvivo Coding process step-by-step

To make this plan effective and straightforward to implement, the descriptive analytical technique will incorporate the concept of e-government. A complete analysis of the analyzed data will utilize textual and graphical representation to study the crucial themes indicated in the guidelines. In addition, during the literature review, we used an indirect citation. Grounded theory was used in this case as the approach of the Study.

RESEARCH RESULT

Here we will mention innovative payment solutions for customers, merchants, and riders. Through this, new interactive payment solutions and the automation of payment will be introduced, so we can promote the cashless flow and regulate the way of transactions between different parties.

Payment Solutions for Customers

Customers or consignees start the transaction flow when they book or order the parcel or shipment from the E-commerce website or Mobile Application. Once an order is booked, the customer has to pay for the ordered item. Currently, customers can pay when an order is booked online, when the order is processed online, or even when the rider reaches its location online or offline. Based on it, we will explain different innovative solutions for customers through which customers can pay at any time between order booked to order physically reaches to them, which are as follows;

Buy Now Pay Later

The 'Buy Now Pay Later' solution is one strategy for providing customers with innovative payment ways. In this solution, the Customer can order and receive the order, but ultimately, the amount he will not pay at the same time; instead, the customer can adjust the payment in installments. That way, e-commerce merchants can bring in many new customers who do not buy due to financial constraints and cannot pay the entire amount together. So, with this solution, new customers can get benefits, and the current customer can also use this option as an alternative option in case of a problem of financial constraints. Also, this solution will digitize the feature that customers only get on offline shopping, where they buy items on installment by going physically to the shop. This option will also fill this gap and remove the differences between online and offline shopping, increasing the online penetration of customers. This solution Ecommerce merchant website or app should also have, and also in case of eCommerce merchants are outsourcing their logistics operation to any third party, then that third-party logistics should also provide this feature on their website or App so customers can also pay to the riders of 3PL through this solution.

Pay through Cryptocurrency

There is so much buzz around Cryptocurrency, which is highly accepted and promoted as a future payment solution. However, on eCommerce sites, only a few merchants still provide payment through cryptocurrency for online shopping, which is not enough if we compare it to its scope. So many people are likely to purchase, seeking the merchants, and even they wanted to spend more if they have been given the option of payment with cryptocurrency. People want to switch to paying with cryptocurrency because, firstly, the speed of the crypto removes a layer of processing the transaction, which takes much time on other payment modes. Another reason is security, and crypto has been based on blockchain technology which is considered the safest technology right now. Finally, the reduced transaction fees through cryptocurrency compared to transactions with Cards and other payment methods like PayPal combined make cryptocurrency more efficient for customers. That is why eCommerce sites and 3PL companies should move to implement it, which gives customer ease and gives eCommerce sites a competitive edge over other online stores.

Pay through Blockchain Smart Contract

Also, even if we do not want to add cryptocurrency, another extension of blockchain for making the transaction of amounts easy, secure, and innovative is to implement Smart Contracts. Smart Contracts are like traditional contracts, but instead of writing the terms on paper, this feature converts the term and conditions of the contract into a computer code which is set by the parameters agreed between two parties, in this case, will be eCommerce merchants or 3PL Companies and Customer or buyer. Then after fulfillment of all terms, like, in this case, will be when the customer receives the ordered items physically. Finally, the transaction will be automatically triggered, and the payment against the ordered items will automatically get deducted from the customer account. It

will be sent to the E-commerce merchant or 3PL company account. It creates ease for the customer without extra effort; one has to agree with the terms, and then the transaction is automated. Also, it is secure due to blockchain technology is what this is based on. That is why e Commerce sites and 3PL companies also should work towards its implementation because eCommerce firms will have a competitive edge over other online shops and facilitate customer convenience.

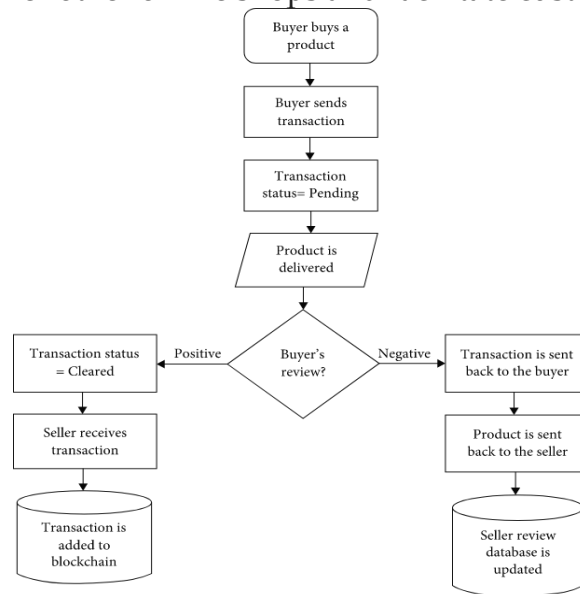


Figure 3. Payment structure via Blockchain Smart Contract

Online Payment through Credit Cards

This is a very standard feature that most eCommerce merchant website or app has, but still, only some of them provide that feature. In the case of e-commerce merchants outsourcing their logistics to 3PL companies, most 3PL companies need to give this solution to the customer. Through this solution, the customer can pay the item amount booked at any time, starting from the booking until the order reaches its location. This is the most basic and standard solution that every e-commerce or 3PL company should provide to enhance the online payment transaction and decrease the cash flow. So, with online payment, the customer can pay for the ordered item through his credit and debit cards from when booking until the order is received.

Online Payment through Credit Cards with POS Device

Another solution that can be implemented, which is also related to the payment of ordered items through credit or debit cards, is instead of giving the option of online payment in the website or mobile application, eCommerce merchants or 3PL companies can equip their riders with Point of Sale (POS) devices through which when the rider will arrive at the location of the customer giving the order so instead of giving the amount in cash customer can give the credit or debit card which through POS device Rider will process it and deduct the amount of ordered item and give back the card to the customer. In this way, the customer can be able to pay if the customer does not have enough in hand but has the amount in the account also; if the customer did not know about online

payment way or forgot to pay online, then through this POS device solution customer will always have the option to convert the transaction from cash to online payment. Therefore, this solution will ensure that the transaction is done online; it will remove all the possibilities of going offline unless the customer wants to pay only through cash.

Online Payment through Digital Wallet

This is also one of the popular ways of paying online by giving customers the option of a digital wallet in it; Customers can create an account on the eCommerce site or the mobile application. Then, they will put the amount in the digital wallet, which they can use to pay for buying any item through a saved amount, so no cash or card is needed if the customer wants the amount of the ordered item will be automatic gets deducted from the Digital wallet. This option will bring convenience and make customer payment flow organized without compromising the customer's credit or debit card information. It is an outstanding value-added feature for customers who are regular buyers of specific brands or online stores.

Online Payment through E-Checks

Another Different but revolutionary solution for the eCommerce sites customer for payment will be to introduce the eCheck solution, eChecks are similar to regular paper checks, but eChecks are processed electronically online. For merchants and customers, there is value in using it due to its very low processing cost on it with it; merchants can convert especially recurring customers, to less expensive payment options. eChecks also save us from declining recurring payments due to expired cards. Finally, it will also provide one more payment option to give customers and promote cashless transactions.

One Click to Pay Feature

Finally, one of the innovative ideas of the feature can be the One-Click-To-Pay button. When a customer shops online, there is an option of "Add to Cart," and eCommerce sites can give the opportunity to Buy Now with a Single Click. So, with one button, customers can buy the products and get them delivered. Through it, customers can buy things much more efficiently, dramatically improving their convenience. Also, the other benefit of this was that when customers use this button, they need to save all their information first one time. Their personal information. Name, contact details, payment details, and billing address. So, customers can easily buy quickly without every time filling details. Also, it increases the sales for eCommerce sites. If customers have to click multiple buttons to purchase something, it gives them time to think. Do I need it? Should I buy it? Nevertheless, if one click of a button is present, you get to buy something and would not even have the time to think. So, eCommerce site sales will grow, and the customer will save so much time filling in details.

Payment Solutions for Merchants

The second category is to provide innovative payment solutions between Ecommerce websites merchants and Third-party logistics companies. So, how can 3PL companies, after receiving cash from the customer, pay it back to eCommerce merchants through digital solutions. Some of them are as follows;

Cash Now Deliver Later

Through this option of 'Cash Now Deliver Later,' when 3PL companies collect orders from eCommerce merchants, 3PL companies will pay the value of each order they collected in advance to the Ecommerce Merchants. When the customer receives the order, the amount collected from the customer will be held by a 3PL company because they already paid the amount against the order to the eCommerce merchant. In that way, the eCommerce merchant will get the amount in advance as security so they will not have to worry that the 3PL company will create any delays on payment and also make the 3PL companies viable that they have to deliver the order successfully as quickly because they already made the advance payment of it.

Auto Payment After Order is Delivered

Another way to do it if 3PL companies do not want to make the payments in advance due to their financial constraints, they can make the Instant Payment to the eCommerce merchant soon order is delivered, which means the customer receives the rider of 3PL company receives the order and payment. To make the transaction automated and seamless, the best way to do it is to use a Smart Contract, so 3PL companies and eCommerce merchants agree on terms and conditions and when terms are fulfilled, which in this case is the customer receives the Order. Payment will be transferred will be done.

Payment Solutions for Riders

Finally, the last category will be related to the Riders either they will be working for eCommerce merchants, or they can be working for 3PL companies if Ecommerce merchants decide to outsource their logistics operations. In any case, Rider work is essential and risky because they must carry and receive cash from a customer. So many times, s Cash gets misplaced, dropped mistakenly by the rider, Snatched or stolen from them, etc., and so many reasons; that is why it is essential to provide an and safe and secure way for Rider to make the cash they receive save.

Rider Cash Deposit on Cash Deposit Machine

One of the innovative ways to make cash safe for riders receiving from customers is to introduce the working that rider instead of holding all money in hand and waiting to come back to the office and submit some cash to the cashier, in contrast to what 3PL companies and Ecommerce websites can do they can Connect different banks and now each bank usually have the Cash Deposit machine with ATM machine on which riders can deposit cash on it. In that way, as Rider receives Cash from the Customer, they can directly deposit it on the Cash deposit machine. Through this, the risk of cash loss will be minimized.

Rider Cash Deposit on Bank

Another way to make cash safe en route, which 3PL companies and e-commerce websites can do, is to connect to different banks and open their account on it and on, which riders can deposit cash on. This is also one of the innovative ways to make cash safe for riders receiving it from customers. Instead of having all the money in their hand with this approach, the Rider can place the Cash they get from the Customer immediately and get it Deposited in the Company bank account. The chance of cash loss will be reduced as a result.

Rider Cash Deposit on Franchise

Last but not least, 3PL companies and e-commerce websites can introduce a money transfer service through mobile services that allow them to connect to various franchise owners of shops, making cash received by riders safe while on the road. Once accounts are opened with it, riders can deposit some money on it. This is another inventive method for protecting cash that riders receive from consumers. With this method, the Rider can immediately deposit the money they get from the customer into the franchise shop's bank account rather than holding all of it in their hands. As a result, there will be a lower likelihood of cash loss.

CONCLUSIONS AND RECOMMENDATIONS

The authors of the paper are concluding the work with the satisfaction that we are able to give clarity on the intent behind the research. Now it is crystal clear that how countries government needs to move towards the cashless transaction not only for the reason of customer experience and service to be given to their citizens as a customer but also to regulate the way of the transaction With the help of it, the government can track and tax each money transaction. Therefore, we have started with the issue of in effectivity and gaps in the current way payment transaction are done during all phases of Online Shopping; then we specifically mentioned the issue gaps with respect to each stakeholder involved in the flow of Online shopping which get start from booking of order and ends at customer receiving the order, so we individually explained the flaw related to riders, customers and merchants way of operating and then step by step presented all possible solutions which currently is available to use which not only can make money transaction transform from paper cash to digital transfer. Nevertheless, also help the government regulate undocumented transactions and businesses, which takes advantage of this flaw right now. This is why the government should initiate this project and ensure it is followed precisely by the e-commerce and logistics sector.

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